

# ALHAMBRA FOUNDRY CO., LTD.



**BRASS  
GRAY IRON  
ALUMINUM  
STRUCTURAL  
MACHINE SHOP**

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# ALHAMBRA FOUNDRY COMPANY, LTD.

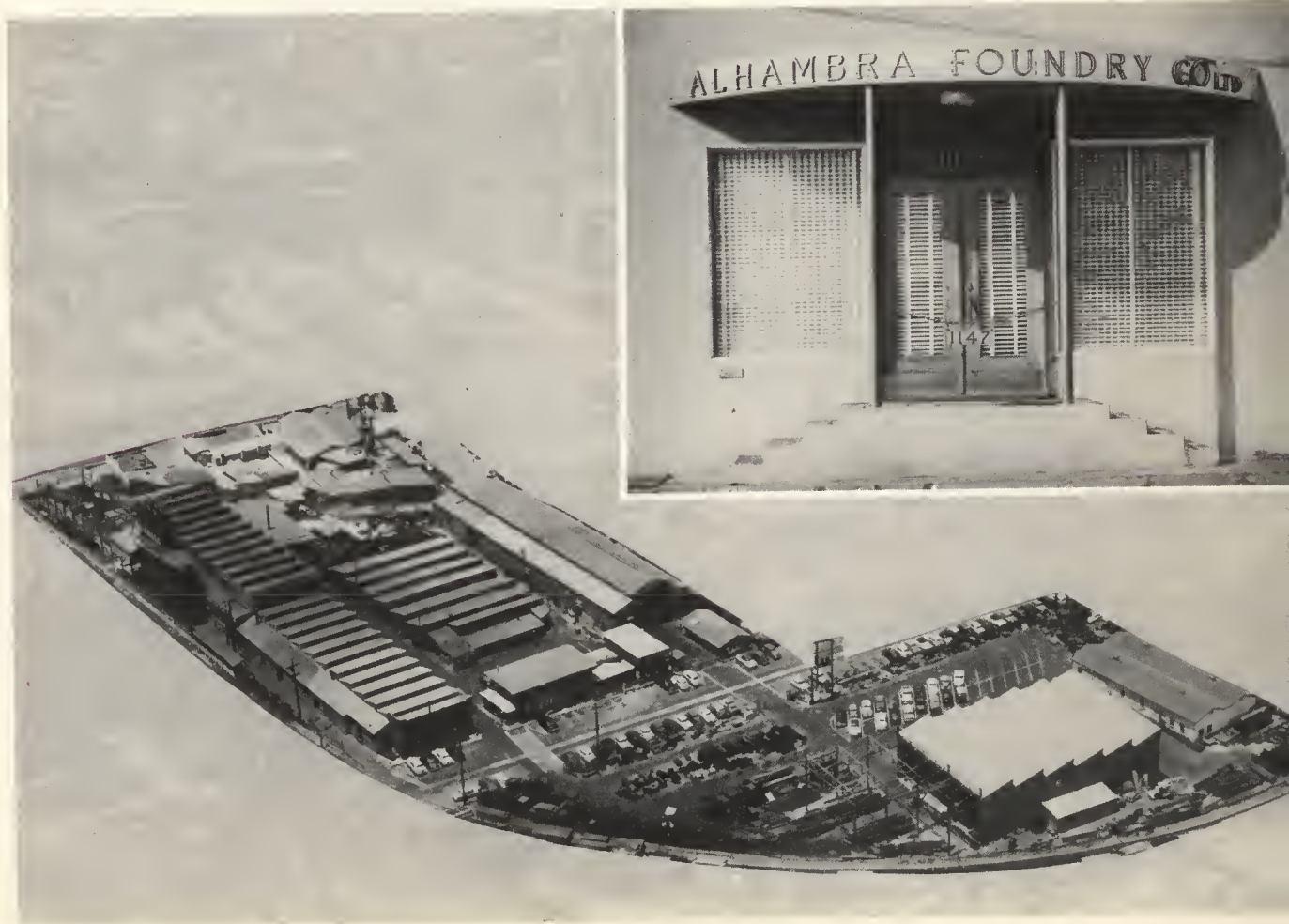
CATALOG N° 15

JULY 1954

- GRAY IRON
- ALUMINUM
- BRASS
- STRUCTURAL
- MACHINE
- SHOP

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## FOREWORD

Upon insistent demands of our friends, and due to the fact that we have added many items to our line, we find it necessary to publish a new edition of our Catalog. The aim of this Catalog, like those previously published, is to give the designer, engineer, and consumer a useful, reliable reference book.

We manufacture and handle many items which are not shown in this Catalog. Information and prices pertaining to any article made of iron, steel, bronze, brass or aluminum will be furnished upon request.

Faithful and efficient service, and the keeping abreast of the times in our line, has gained for us the confidence of our friends and customers. We are proud of this attainment; and it is our desire to always merit their friendship and goodwill.

We again wish to acknowledge our appreciation of the  
long and pleasant associations and lasting  
friendships made in the course  
of our dealings.

**ALHAMBRA FOUNDRY CO., LTD.  
ALHAMBRA, CALIF.**



## USEFUL FACTS ABOUT GRAY IRON

General betterment in gray iron castings has resulted from a gradual appreciation, on the part of the foundryman, of the increasing need of supplying casting users with something better than the usual one grade, all purpose, iron. This awakening was responsible for a vast amount of technical research which covered all phases of the foundry industry — mixtures, melting, molding, etc. — and resulted in the development of the modern foundry technique which enables the foundryman to supply his customer with castings processed to meet specific needs.

It does not necessarily follow that a specially named iron produced by one foundryman is superior to the unnamed product of another foundryman. Different foundries, employing different methods and different compositions may produce irons of substantially the same engineering properties. Accordingly, it is becoming quite common practice for engineers and designers to specify simply the physical or other special requirements and to eliminate entirely extensive chemical specifications, which frequently are unduly restrictive.

### DEFINITION

Because of the complexity of its structure it is difficult to find a satisfactory definition for gray iron. In general, however, gray iron may be defined as an alloy of iron, silicon and carbon, which also contains appreciable percentages of other elements such as manganese, phosphorous, and sulphur. Elements such as nickel chromium, molybdenum, copper, titanium, etc., are sometimes added with the intention of modifying certain properties of the metal.

The New Century Dictionary of 1927 defines cast iron as a "hard brittle, impure form of iron obtained by remelting pig iron with limestone". Again many of the engineering hand books of an early vintage, but still to be found on the engineer's desk as a pleasant reminder of college days, quote the extreme tensile strength of gray iron as 20,000 pounds

per square inch. These statements, antiquated though they are, are unfortunately accepted by many as still representative of present-day conditions. The vast technical improvements which have taken place in the gray iron industry during recent years have greatly enhanced its commercial position.

### SPECIFICATIONS

After a reissue as Tentative in 1932, the American Society for Testing Materials adopted in 1936 A48-36 as Standard Specifications for gray iron castings where strength is a consideration. The present ASTM designation is A48-48. Every member of the Gray Iron Founders' Society is in possession of these Standard Specifications.

### ALLOYS

Strictly speaking, all gray irons are alloys, but metallurgical research, spurred by the multiplicity of requirements of the modern manufacturer, have carried the foundry man far afield from the original alloy of iron and carbon. At one time price competition became so savage that many progressive foundry men obtained protection and took on trade names for special alloys in order to distinguish them from ordinary cast iron which was becoming very "ordinary" indeed and in a fair way to lose its market despite its low price. The term "semi-steel" became quite prevalent, despite the fact, that even when an all steel charge is melted in the cupola the output is cast iron due to the absorption by the steel of the carbon content of the coke fuel.

It is impracticable to go into details, within the scope of these few lines. It suffices to say, that this foundry is the designer's close friend. It is our desire to keep abreast of modern metallurgical development and to be willing to place this knowledge at the disposal of the designer and spare the firm many costly ventures into the realms of "just as good".



## **FABRICATED STEEL**

It is quite essential that the modern foundry of today be equipped to fabricate light structural shapes and plates. Customers of the Alhambra Foundry Co. have found it very convenient to patronize this department in order that their iron and steel requirements may be satisfied at one source assuring undivided responsibility.

Standard fabricating practice is adhered to, and assemblies are welded, riveted, or bolted as design demands.

We welcome your inquiries, particularly those pertaining to Engineering Construction Projects such as State Highway, Public Works, and Army, Navy and Air Force facilities.

### **SOME OF OUR TYPICAL PRODUCTS**

Trash Racks and Bar Screens

Hatch Covers and Frames

Ladders and Stairways

Pipe Handrail

Special Steel Doors and Door  
Bucks

Weir Plates and Stop Gates for  
Sewage Treatment Plants

Steel Walkways and Operating  
Platforms

Bulkheads and Guides

Trench Grates and Frames

Bridge Rail

Expansion Assemblies

Bridge Rocker Assemblies

Catch Basin Grates and Frames

Railroad Rail for Rail Top  
Reinforced Culverts

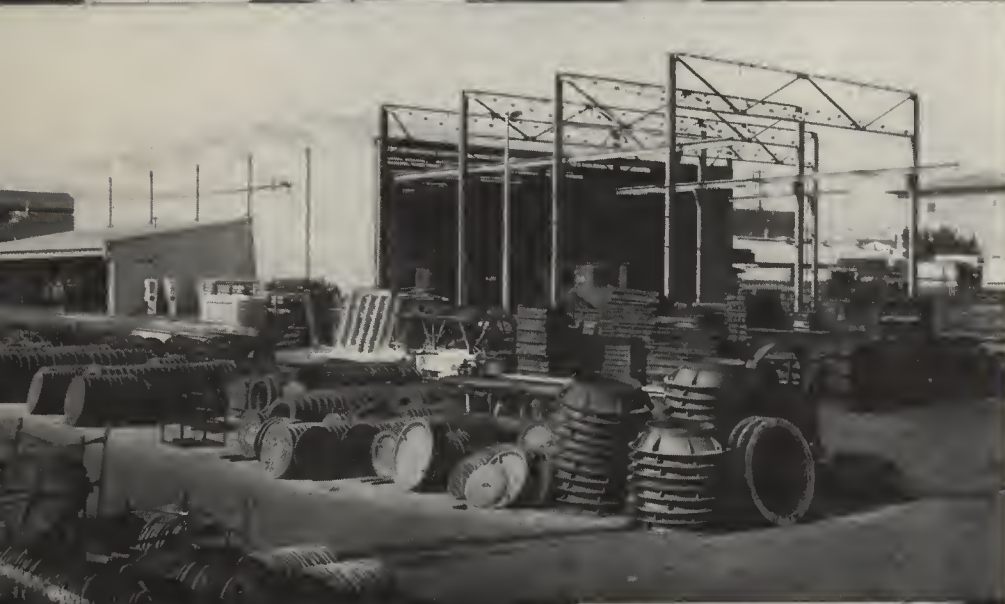
Reinforcing Steel for Drainage  
Structures

Cable Racks

Transformer Racks

Machinery Base Plates and  
Frames





AFCo BRIDGE RAILINGS form striking pattern on Freeway Crossover...NEW STRUCTURAL SHOP shows expansion for increased fabricating facilities...UNIQUE 4-LEVEL INTERCHANGE in Los Angeles again shows AFCo railings in use; a part of miles of highway network so protected



## **CATALOG NUMBER 15**

**JULY • 1954**

### **TERMS OF SALE**

This catalog supersedes all previous issues.

Credit Terms: Thirty days net.

Prices and Designs: Subject to change without notice.

Contracts: Subject to strikes, accidents, or other causes beyond our control  
No claims allowed unless made within ten days of receipt of goods.

We guarantee Alhambra Foundry Company materials to the extent that we will replace those having manufacturing defects when used in the service for which we recommend. No charges for labor or for expense required to repair defective materials, or occasioned by them, will be allowed. If the materials are defective, the measure of the damage is the price of the defective materials.

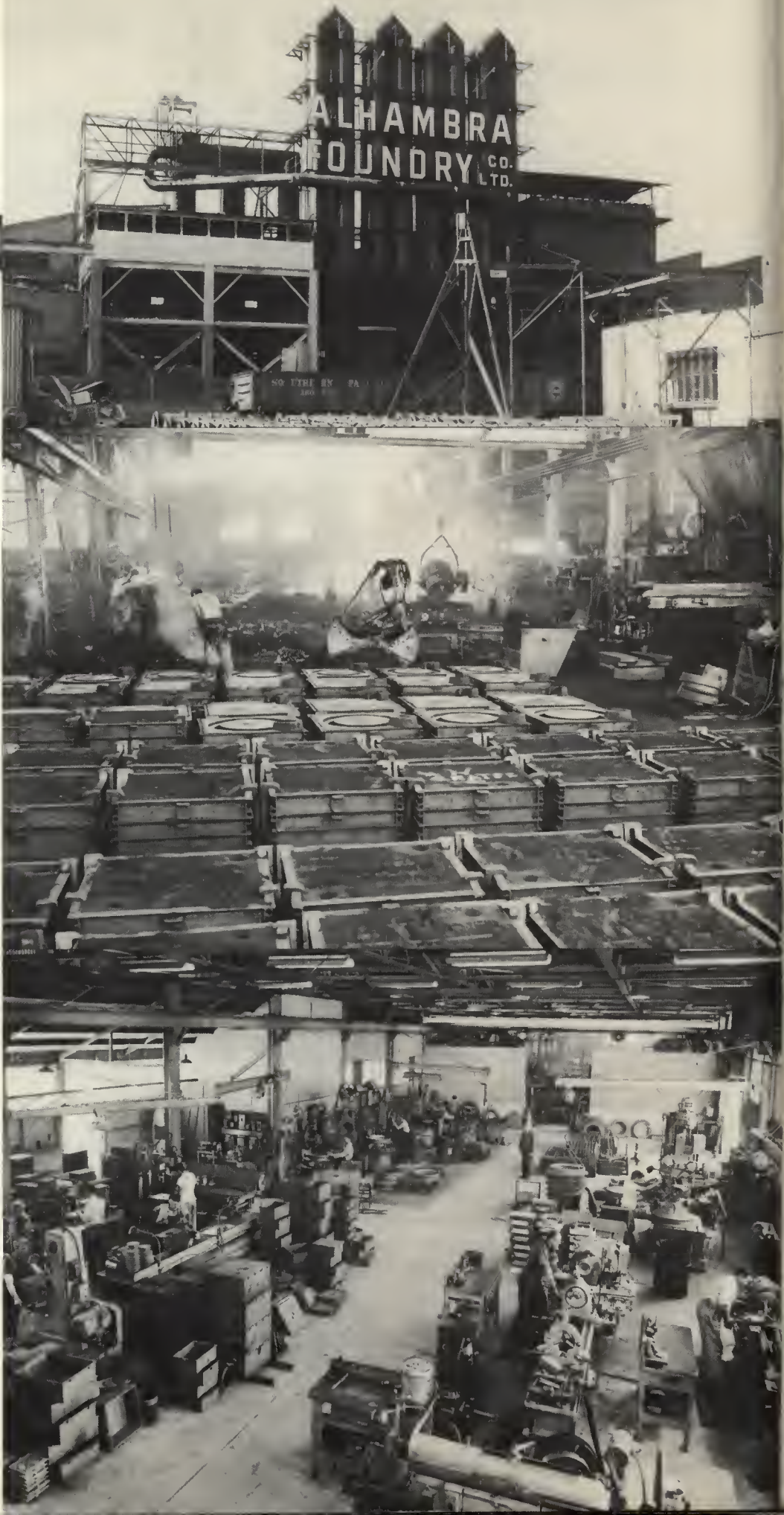
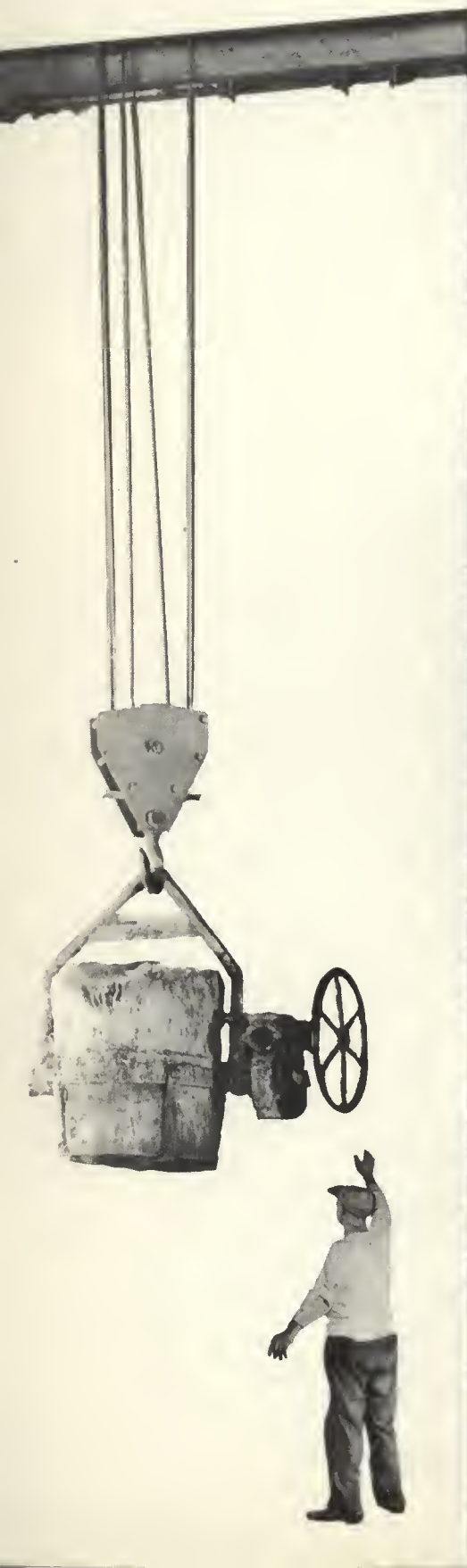
Materials must not be returned to us unless our consent has first been obtained. All material returned must on its arrival at our Works be found in first class condition; if not, cost of putting in salable condition will be deducted from credit memoranda.

A final deduction of ten per cent will be made from all credit memoranda issued for material returned.

Orders covering special goods are not subject to cancellation, except upon agreement to make payment for the special work that has been performed. Packing as required for Export will constitute an additional charge above quoted prices.



AS A LANDMARK, Alhombra Foundry Co. proudly displays its successful series of smog control stocks ... MOULDING FLASKS line the foreground of the moulding floor as men, heat ond metal form o living backdrop ... FINAL SIZE AND FINISH is given costings in AFCo's own mochine shop





## VAULT FRAMES AND COVERS

### Cast Iron Vault Covers and Frames

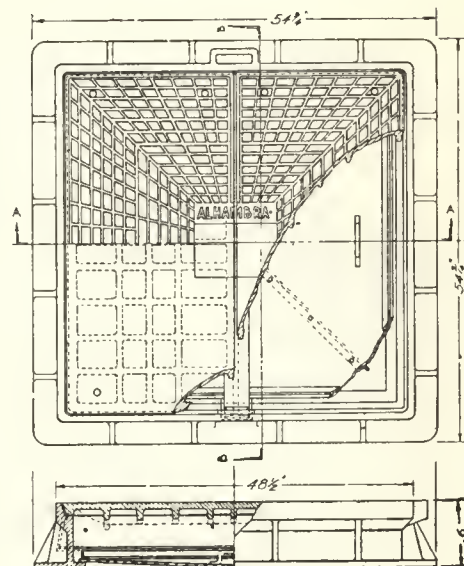
#### EDISON TYPE

Split Covers. Hermetically Sealed Steel Inner Pans.

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1001	48x48	62x62	9½	2,500	\$500.00
A-1002	41x41	55x55	9	1,900	400.00
A-1003	34x34	47x47	8	1,200	250.00
A-1004	33x33	47x47	9	1,500	300.00

Heavy Traffic.

Square Block Tread. Drop Lift Handles. Seats of Covers and Frame carefully ground. Painted: One Coat Bituminous Paint.



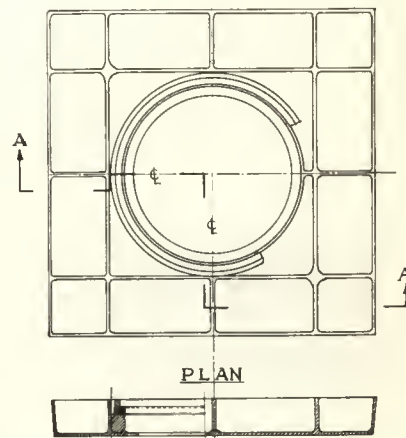
A-1000

### Cast Iron Frameless Traffic Cover

#### EDISON TYPE

PLATE NUMBER	CLEAR OPENING	OVERALL	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1030	48	54	6	1170	\$240.00

Center cover - 26" Traffic Style with Seal Pan Machined to Fit.



A-1030

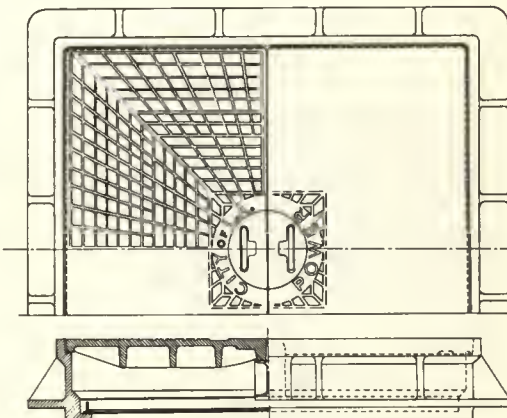
### Extra Heavy Vault Frames and Covers

#### LOS ANGELES CITY TYPE

Conforms to Department Water & Power Dwg. A-348 Cast Steel, Split Covers. Cast Iron Frame. Hermetically Sealed Inner Pan.

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1010	40x40	55x55	9¾	1,800	\$470.00

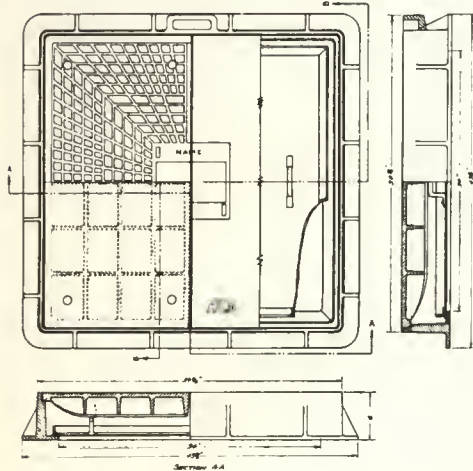
Square Block Tread. Drop Lift Handles. Seats of Covers and Frame Fully Machined. Painted: One Coat Bituminous Paint. Galvanized Pan and Cover Support Beam.



A-1010

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## VAULT HEADS



A-1050

**Parkway Vault Covers and Frames**  
 EDISON COMPANY TYPE

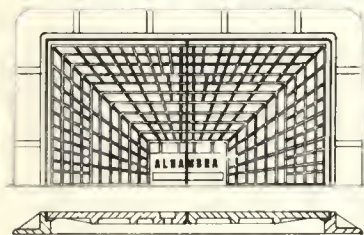
For Light Traffic Areas Only. Two-Piece Cover. Steel Inner Pan.

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1050	34x34	44x44	6 1/4	875	\$170.00

Square Block Tread. Pick Hole Lifts. Seats of Covers and Frames Ground to Fit. Painted: One Coat Bituminous Paint.

**Shallow Type Vault Cover and Frame**  
 HEAVY TRAFFIC

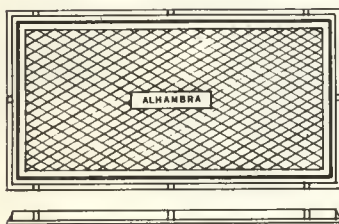
For Usage where Head Room is Limited or Thin Concrete Slabs.



A-1060

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1060	41 1/2 x 41 1/2	53x53	4	1,300	\$300.00

Square Block Tread. Drop Lift Handles. Seats and Covers Ground to Fit. Painted: One Coat Bituminous Paint.



A-1690

**Splice Box Cover and Frame**  
 MEDIUM WEIGHT

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1690	18x36	23x41	2-1/8	225	\$45.00

Diamond Tread. Covers and Frames Carefully Fitted. Pick Hole Lift. Painted: Bituminous Paint. Covers Lettered to Suit. Conforms: Bell Telephone Dwg. CS-1475.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

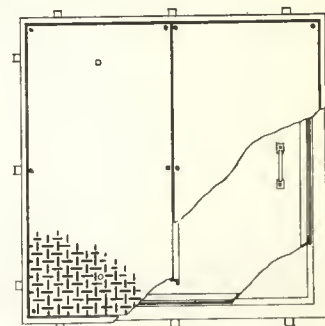
## FRAMES AND COVERS

NON SLIP, STEEL CHECKERED PLATE COVERS—ANY DESIGN, SIZE AND WEIGHT MADE TO ORDER

### Fabricated Steel Frame, Cover and Inner Cover CHECKERED PLATE TREAD

PLATE NUMBER	STRENGTH	CLEAR OPENING	OVERALL OF TOP	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1055	Parkway	41x41	47½x47½	3¼	410	\$188.00

Painted: One Coat Aluminum or Red Lead Paint.

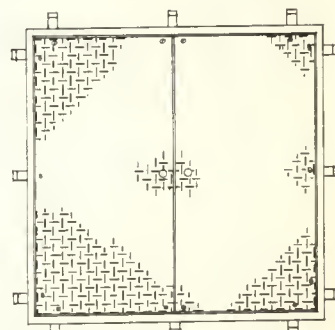


A-1055

### Fabricated Steel Checkered Plate Cover and Frame

PLATE NUMBER	STRENGTH	CLEAR OPENING	OVERALL OF TOP	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1080	Parkway	40x40	44¼x44¼	2¼	210	\$ 75.00
A-1081	Traffic	40x40	46x46	3	380	130.00
A-1082	Parkway	48x48	52x52	2¼	297	105.00
A-1083	Traffic	48x48	54x54	3	537	181.00

Painted: One Coat Aluminum or Red Lead Paint.



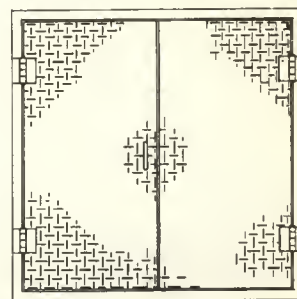
A-1080

### Fabricated Steel Checkered Plate Hinged Cover and Frame

PLATE NUMBER	STRENGTH	CLEAR OPENING	OVERALL OF TOP	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1084	Parkway	36x36	41x41	2½	320	\$110.00
A-1085	Parkway	48x48	53x53	2½	510	175.00

Conforms to Plate No. 4 — Navy Specification 42 Ya.

Painted: One Coat Bituminous Paint.

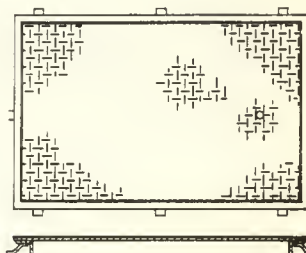


A-1084

### Fabricated Steel Checkered Plate Pull Box Cover and Frame

PLATE NUMBER	STRENGTH	CLEAR OPENING	OVERALL OF TOP	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1086	Parkway	24x36	28x40	2-1/4	120	\$ 46.00
A-1087	Traffic	24x36	29x41	2-3/8	200	62.50
A-1088	Parkway	30x48	36x54	2-7/8	240	90.00
A-1089	Traffic	30x48	36x54	3	330	125.00

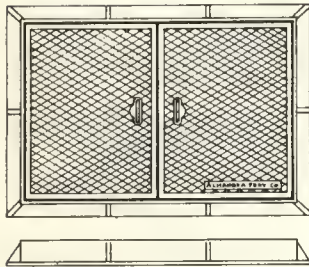
Painted: One Coat Red Lead.



A-1086



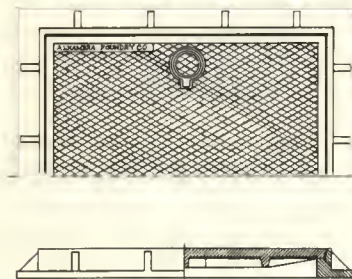
## FRAMES AND COVERS

**Heavy-Duty Rectangular Covers and Frames**  
 FOR HEAVY TRAFFIC—SPLIT COVERS


A-1430

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1430	42x54	53x65	4½	1740	\$314.00
A-1431	44x48	54x58	4½	1420	255.00
A-1432	42x42	53x53	4½	1235	220.00
A-1433	37x54	46x64	4½	1300	234.00
A-1434	36x48	44x56	4	1085	195.00
A-1435	24x42	33x51	4½	720	130.00

Raised Diamond Tread, Drop Lift Handles. Covers Carefully Ground to Fit Frames. Painted: One Coat Bituminous Paint.

**Heavy-Duty Rectangular Covers and Frames**  
 FOR HEAVY TRAFFIC—SINGLE COVERS


A-14410

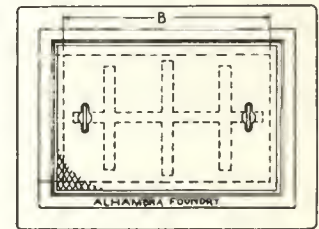
PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-14411	36x36	46x46	4	1075	\$215.00
A-14412	34x34	44x44	6½	725	145.00
A-14413	30x36	40x46	6	680	136.00
*A-14414	28x32	38x42	7	730	150.00
A-14415	24x24	34x34	4½	425	85.00
A-14416	24x36	33x45	4	550	110.00
A-14417	24x28	38x42	4	575	115.00
A-14418	24x26	30x32	3½	335	67.50
A-14419	24x24	32x32	6	405	81.00
A-14420	22x22	32x32	6	355	71.00
A-14421	18x24	27x33	6	457	91.00
A-14423	16x16	36x36	6½	415	83.00
A-14424	14x21	28x48	5¼	425	85.00
A-14425	12x18	22x27	6	190	38.00
Add for Drop Lift Handles, Each					3.50

Raised Diamond Tread, Regularly Furnished with Pick Holes, Add For Drop Handles. Covers Carefully Ground to Fit Frames. Painted: Bituminous Paint. \*Conforms to Graybar No. 278.

## FRAMES AND COVERS

### Extra Heavy Rectangular Covers and Frames FOR HEAVIEST TRAFFIC CONDITIONS

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-13701	36x48	44x56	4	1060	\$190.00
A-13702	36x36	47x47	4	950	170.00
A-13703	31x31	38x38	5	640	115.00
A-13704	30x30	40x40	4 $\frac{3}{4}$	745	130.00
A-13705	24x48	33x51	4	815	146.00
A-13706	24x36	33x46	4	760	136.00
A-13707	24x30	33x40	3	540	97.00
A-13708	24x24	30x30	3	370	66.00
A-13709	18x24	25x31	2 $\frac{1}{2}$	310	55.00
A-13710	18x18	26x26	2	245	44.00
A-13711	16x16	25x25	3	230	41.00
A-13712	14 $\frac{1}{2}$ x25	26 $\frac{1}{2}$ x36 $\frac{1}{2}$	3	385	69.00



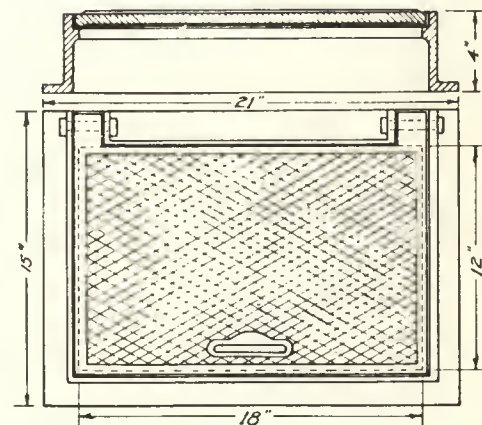
A-13700

Diamond Tread. Drop Lift Handles. Covers Ground to Fit Frames.  
Painted: One Coat Bituminous Paint.

### Hinged Valve Cover and Frame GOVERNMENT PATTERN—LIGHT TRAFFIC ONLY

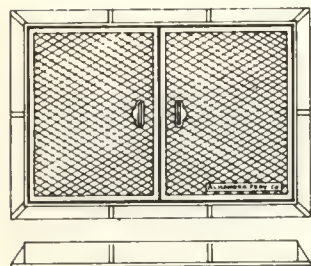
PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1330	18x35	22 $\frac{1}{2}$ x39 $\frac{1}{2}$	4	190	\$55.00
A-1331	14x35	18 $\frac{1}{2}$ x39 $\frac{1}{2}$	4	162	47.50
A-1332	12x24	17x29	4	95	40.00
A-1333	12x18	16x23	4	70	30.50
A-1334	12x12	17x17	4	50	20.50

Diamond Tread. Heavy Integral Cast Hinges.  
Painted Bituminous Paint. Drop Lift Handles.



A-1330

## FRAMES AND COVERS



A-1340

**Parkway Covers and Frames**  
NOT FOR HEAVY TRAFFIC—SPLIT COVERS

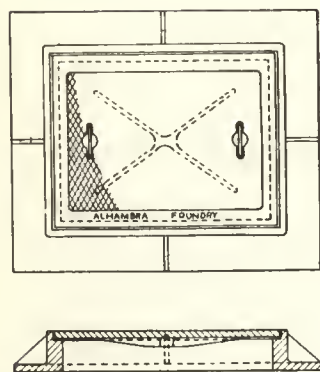
PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1341	36x54	41x59	4	770	\$154.00
A-1342	24x48	33x57	5	460	92.00

Raised Block Tread. Drop Lift Handles. Covers and Frames Carefully Fitted. Painted: Bituminous Paint.

**Parkway Covers and Frames**  
NOT FOR HEAVY TRAFFIC—SINGLE COVER

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-17551	36x36	42x42	4	550	\$110.00
A-17552	30x36	40x46	6	590	118.00
A-17553	30x30	36x36	3	305	61.00
A-17554	29x29	33x33	1½	238	48.00
A-17556	25x31	32x38	4	365	73.00
A-17557	24x36	34x46	4	410	82.00
A-17558	24x30	37x43	6	360	72.00
A-17560	24x24	33x33	3	300	60.00
A-17561	24x28	42x48	4	490	98.00
A-17562	23½x23½	29x29	3	255	51.00
A-17564	20x28	28x36	4	260	52.00
A-17565	18x24	25x32	3	220	44.00
A-17567	17x22	31x36	6	350	70.00
A-17568	14x16	23x25	3	162	33.00

Diamond Tread. Drop Lift Handles. Covers and Frames Carefully Fitted. Painted: One Coat Bituminous Paint.



A-17550

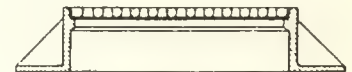
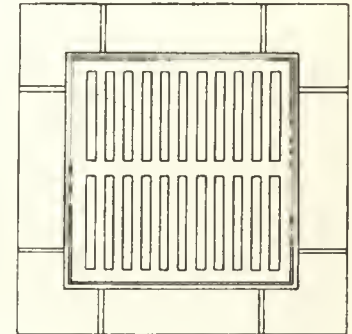


## FRAMES AND GRATES

### Cast Iron Covers and Frames

PLATE NUMBER	STRENGTH	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1231	Parkway	22x22	36x36	7	420	\$60.00
A-1232	Traffic	22x22	36x36	8	435	74.00
*A-1233	Parkway	24x24	35x35	6	300	50.00

\*A-1233 Complies with Plate No. 15 - Navy Specification-42 Ya.  
Painted: One Coat Bituminous Paint. Grating and Frames Carefully Fitted.

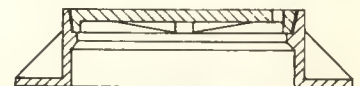
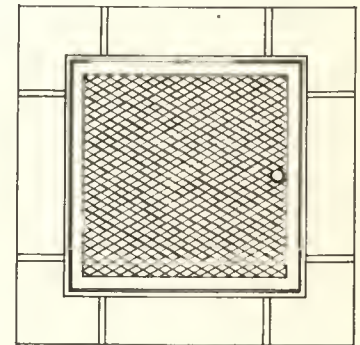


A-1230

### Cast Iron Gratings and Frames

PLATE NUMBER	STRENGTH	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1234	Parkway	22x22	36x36	7	420	\$60.00
A-1235	Traffic	22x22	36x36	8	500	74.00
A-1236	Parkway	24x24	35x35	6	300	50.00

Diamond Tread. Covers and Frames Carefully Fitted.  
Painted: Bituminous Paint.

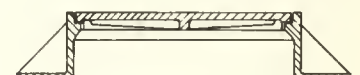
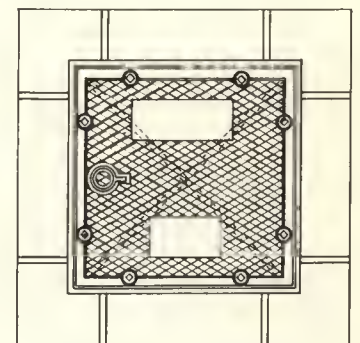


A-1234

### Cast Iron Covers and Frames for Steam Blow-off Tanks BOLTED DOWN COVERS WITH GASKET

PLATE NUMBER	STRENGTH	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1237	Parkway	22x22	36x36	7	430	\$80.00
A-1238	Traffic	22x22	36x36	8	480	105.00

Diamond Tread. Lettered Designation to Suit. Cover Bolted Down with Brass Bolts. Composition or Lead Gasket. Hinged Ring Lift Handle.  
Painted: Bituminous Paint.



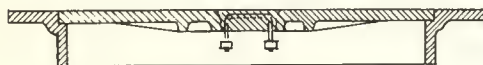
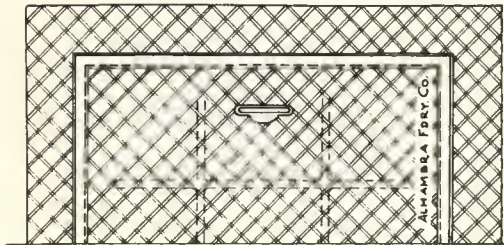
A-1237

## FRAMES AND COVERS

## Parkway Rectangular Covers and Frames

LOS ANGELES CITY AND COUNTY STANDARDS

NOT FOR HEAVY TRAFFIC



A-14600

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-14601	36x48	44x57	3½	540	\$120.00
A-14602	30x30	40x40	4½	390	85.00
A-14603	24x24	34x34	4½	290	64.00
A-14604	22x34	27x39	3	365	80.00
A-14605	21x48	31x58	3½	435	95.00
A-14606	21x35	31x46	4	426	93.75
A-14607	18x22	28x32	4	200	44.00
*A-14608	16¼x20½	24¾x28¾	4	175	61.75
A-14609	16x43	26x53	4	340	75.00
A-14610	16x20	26x30	4½	210	46.00

Add for Locking Cover

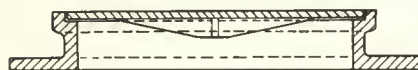
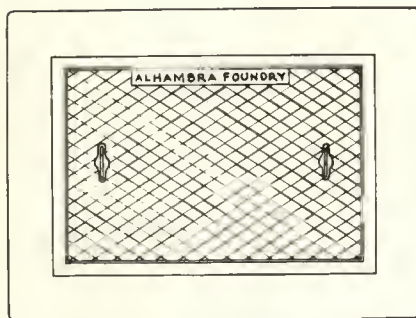
15.00

\*LA County-DC-18- Galvanized Round Corners

Raised Square Tread. Covers and Frames Carefully Fitted. Drop Lift Handles. Painted: Bituminous Paint.

## Government Type Cleanout Covers and Frames

NOT FOR HEAVY TRAFFIC



A-13900

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-13901	24x49	30x57	3½	385	\$84.00
A-13902	24x30	33x39	4	300	67.00
A-13903	24x24	40x40	6	415	87.50
A-13904	22x48	28x60	3½	390	83.00
A-13905	22x40	31x46	4	350	73.50
A-13906	22x34	31½x43½	4	320	69.00
A-13907	21½x36	31x46	4½	335	62.00
A-13908	20x32	29x41	4	275	61.50
A-13909	18x30	27x39	4	235	55.00
A-13910	16x28	25x37	4	210	51.00
A-13911	10x16	19x25	4	110	31.00
A-13912	30x30	38x38	4	380	85.00
A-13913	30x36	39x45	4¾	460	102.50

Diamond Tread. Drop Lift Handles. Covers and Frames Carefully Fitted. Painted: Bituminous Paint.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

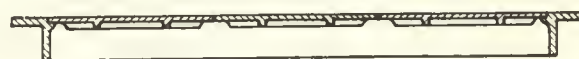
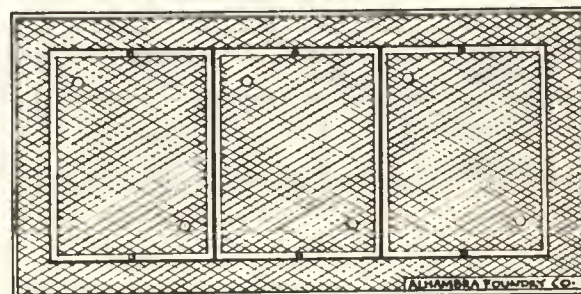


## FRAMES AND COVERS

### Sidewalk Type Catch Basin Frame with 3-Section Cover NOT FOR HEAVY TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1470	20x52	30x62	4 5/8	450	\$120.00

Diamond Tread. Lift Holes. Covers and Frames Carefully Fitted.  
Bolted Down with Allen Head Set Screws. Painted: Bituminous  
Paint. Conforms LA County Road Dept. No. 5.

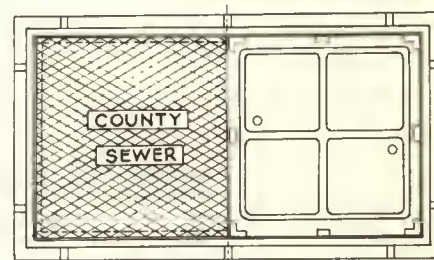


A-1470

### Rectangular Manhole Frame with 2-Section Cover TRAFFIC STRENGTH

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1471	24x50	31x57	3 1/2	650	\$110.00

Diamond Tread. Lift Holes. Covers and Frames Carefully Fitted.  
Painted: Bituminous Paint. Conforms LA County Dwg. No. SA-131.



A-1471

### Catch Basin Covers and Frames PARKWAY TYPE—NOT FOR HEAVY TRAFFIC

PLATE NUMBER	COVER SIZE	OVERALL BASE	HEIGHT FRAME	LIST PRICE
A-1451	18x22	20x24	1 1/2	\$23.00
A-1452	18x24	20x26	1 1/2	24.00
A-1453	18x36	20x28	1 1/2	37.75
A-1454	12x18	14x20	1 1/2	16.80

Diamond Tread. Covers and Frames Carefully Fitted. Painted: Bituminous  
Paint. Lettered to Suit.



A-1450

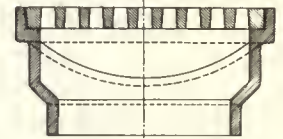
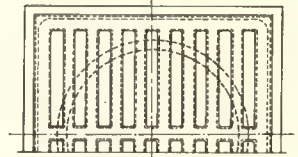


## Ventilator Frames and Grates

FOR UNDERGROUND ELECTRICAL VAULTS AND MANHOLES

### RECTANGULAR, LIGHT TRAFFIC TYPE

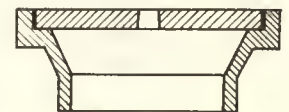
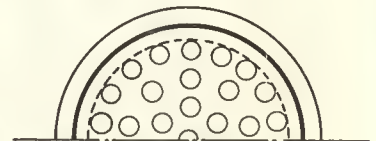
PLATE NUMBER	PIPE SIZE	OVERALL TOP	APPROXIMATE WEIGHT	LIST PRICE
A-2121	8	12x12	42	\$12.00
A-2122	6	9x9	30	9.00



A-2120

### ROUND, HEAVY TRAFFIC TYPE

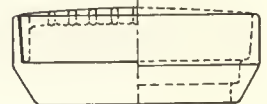
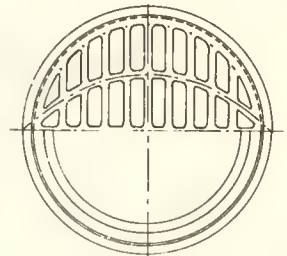
PLATE NUMBER	PIPE SIZE	DIAMETER TOP	APPROXIMATE WEIGHT	LIST PRICE
A-2130	8	10½	40	\$10.00



A-2130

### ROUND, FOR LIGHT TRAFFIC ONLY

PLATE NUMBER	PIPE SIZE	DIAMETER TOP	APPROXIMATE WEIGHT	LIST PRICE
A-2140	8	11¼	30	\$12.00



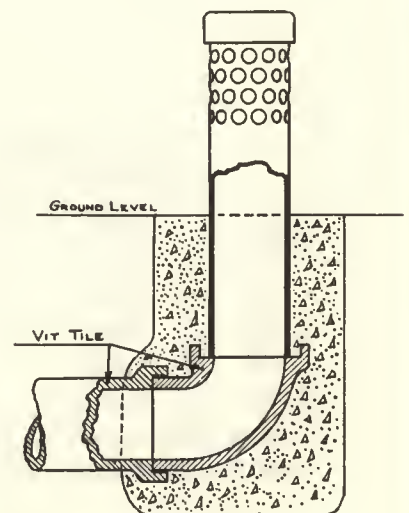
A-2140

## Pipe Vents

PARTICULARLY SUITED FOR UNDERGROUND TRANSFORMER VAULTS

PLATE NUMBER	DIAMETER PIPE	LENGTH	APPROXIMATE WEIGHT	LIST PRICES	
				PAINTED	GALVANIZED
A-2151	4	36	35	\$12.50	\$17.00
A-2153	6	36	60	18.20	23.50
A-2155	8	36	85	23.80	31.25

Any Size or Length made to order. Furnished with Mushroom Type Hood in lieu of drilled holes if required at same prices. Furnished with Welded Cap unless otherwise specified. Aluminum painted or galvanized.



A-2150

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## MANHOLE HARDWARE

STEPS ARE  $\frac{3}{4}$ "  $\varnothing$  STEEL

### Step for Round Manhole

PLATE NUMBER	WIDTH	DEPTH	APPROXIMATE WEIGHT	LIST PRICES	
				BLACK	GALVANIZED
A-3300	14	12	4½	\$ .89	\$1.36



A-3300  
Sewer

### Step for Rectangular Catch Basin

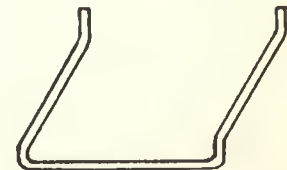
PLATE NUMBER	WIDTH	DEPTH	APPROXIMATE WEIGHT	LIST PRICES	
				BLACK	GALVANIZED
A-3310	14	10	4	\$ .89	\$1.36



A-3310  
Catch Basin

### Step for Rectangular Vault EDISON COMPANY TYPE

PLATE NUMBER	WIDTH	DEPTH	APPROXIMATE WEIGHT	LIST PRICES	
				BLACK	GALVANIZED
A-3320	14	10	5	\$1.75	\$1.90



A-3320  
Edison Type

### Step for Concrete Structures

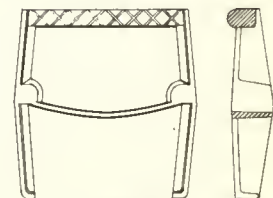
PLATE NUMBER	WIDTH	DEPTH	APPROXIMATE WEIGHT	LIST PRICES	
				BLACK	GALVANIZED
A-3330	14	10	4¾	\$1.30	\$1.65



A-3330  
Vault

### Cast Iron Step for Round or Rectangular Structures

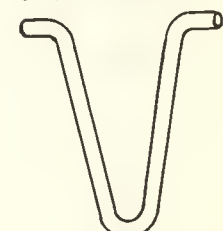
PLATE NUMBER	WIDTH	DEPTH	APPROXIMATE WEIGHT	LIST PRICES	
				BLACK	GALVANIZED
A-3340	8¾	10	10½	\$1.57	\$2.60



A-3340  
Cast Iron Step

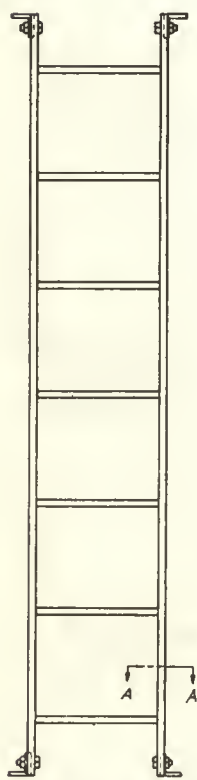
### Pulling-in Irons for Electrical Vaults $\frac{7}{8}$ " ROUND STEEL

PLATE NUMBER	WIDTH	DEPTH	APPROXIMATE WEIGHT	LIST PRICES	
				BLACK	GALVANIZED
A-3350	8¾	9	4¾	\$1.20	\$2.00

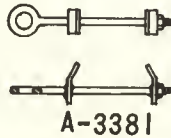


A-3350  
Pulling Iron

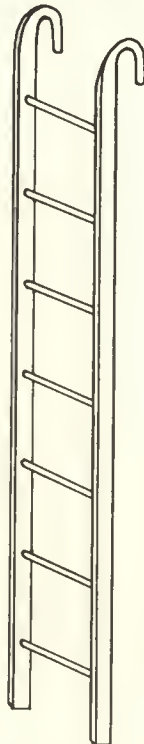
## VAULT HARDWARE



A-3400



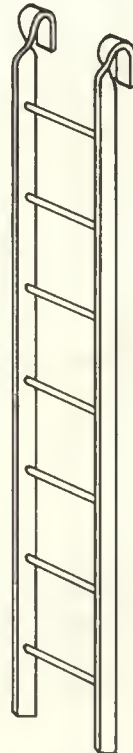
A-3381



A-3380



A-3383



A-3382

## Galvanized Ladders and Supports

## A-3380 VAULT LADDER

10'0" High - Less Eye Bolt  
Supports..... \$31.00

Variations of Height - 12" or  
Less. Add or Deduct..... 1.50

A-3381 - Galv. Eye Bolts,  
Per Pair..... 4.00

## A-3382 VAULT LADDER

10'0" High - Less Bar Support..... \$20.50

Variations of Height - 12" or  
Less. Add or Deduct..... 1.50

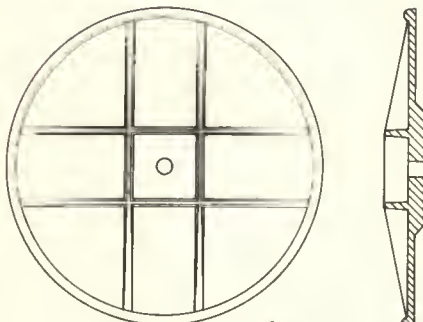
A-3383 - Galv. Bar Support  
Assembly..... 6.10

A-3400 GALVANIZED STEEL LADDER  
WITH SWING JOINT CONNECTIONS

10'0" High, Complete..... \$20.50

Variations of Height - 12" or  
Less. Add or Deduct..... 1.50

Ladders are 14" wide.  
Rungs are 1/2" round.



A-1670

## Anchor Plates for Guy Wire Anchorage

PLATE NUMBER	DIAMETER	APPROXIMATE WEIGHT	LIST PRICE
A-1671	8	10	\$1.70
A-1672	10	14	1.90
A-1673	15	26	4.00
A-1675	20	50	7.00

Cored Center Hole for Various Size Rods. One Coat Bituminous Paint.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



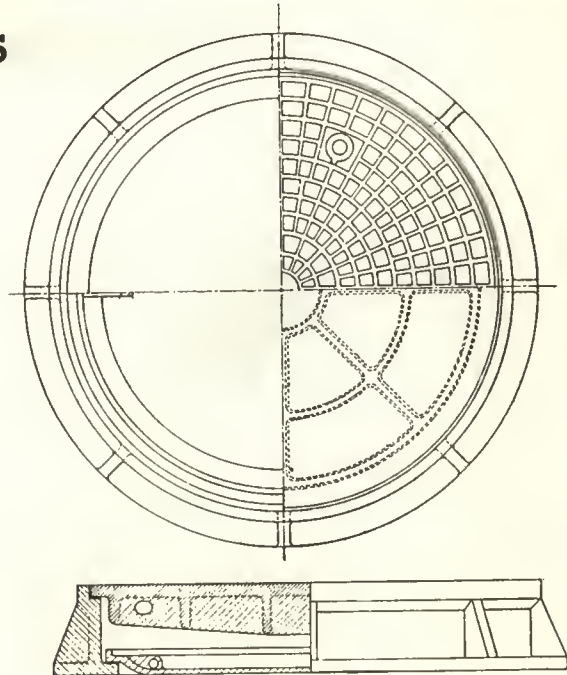
## COVERS FOR VAULTS AND MANHOLES

### Heavy Traffic Strength, Cast Iron Cover, Frame and Inner Pan

For Hermetical Seal on Electrical Installations. Cast Steel Covers furnished on Specification. From L.A. Bureau of Power and Light Designs. Inner Pan made with Caulking Joint.

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT	APPROX. WEIGHT	LIST PRICES	
					C.I. COVER	STEEL COVER
A-1071	26 Dia.	38 Dia.	5	670	\$90.00	\$110.00
A-1072	28 Dia.	40 Dia.	5	730	110.00	135.00
A-1073	30 Dia.	40 Dia.	7	860	160.00	192.00
A-1074	36 Dia.	44 Dia.	5	850	200.00	260.00

Raised Block Tread. Lift Holes. Cover and Frame Machined to Fit. Painted: Bituminous Paint.



A-1070

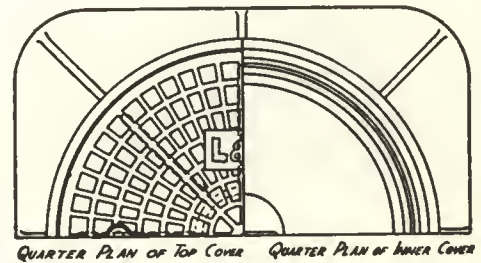
### Heavy-Duty Cast Iron Cover, Frame and Inner Pan

SOUTHERN CALIFORNIA EDISON CO. TYPE

For Hermetical Seal on Electric Installations. Inner Pan made with Caulking Joint. Painted: Bituminous Paint.

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1100	26	38½x38½	6	720	\$90.00

Raised Block Tread. Lift Holes. Covers and Frames Are Machined to Fit.



QUARTER PLAN OF TOP COVER QUARTER PLAN OF INNER COVER



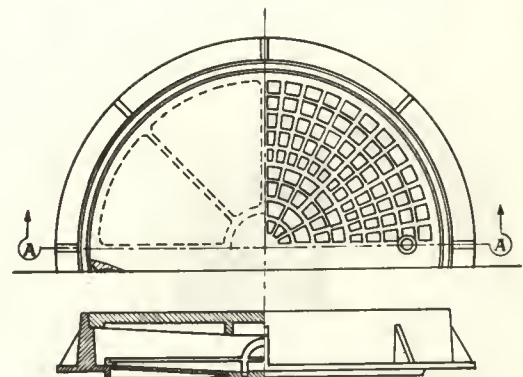
A-1100

### Cast Iron Cover, Frame and Inner Pan for Light Traffic

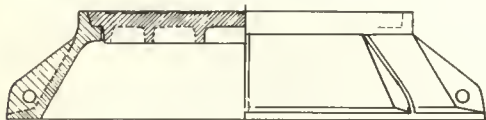
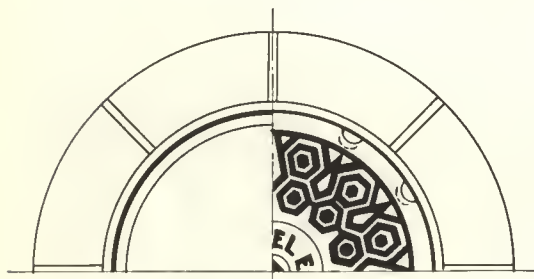
SOUTHERN CALIFORNIA EDISON CO. TYPE  
NOT FOR HEAVY TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1110	26 Dia.	35 Dia.	6	450	\$70.00

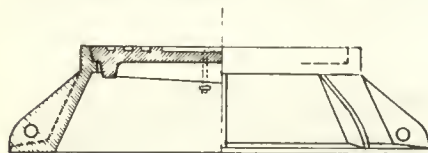
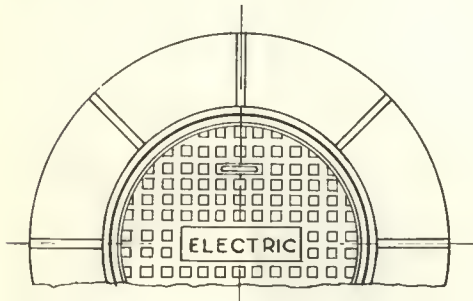
Raised Block Tread. Lift Holes. Cover and Frame Machine Fit. Inner Pan with Caulking Joint. Painted: Bituminous Paint.


 SECTION - A-A  
A-1110

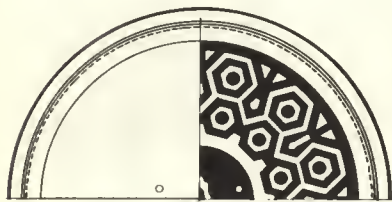
## COVERS FOR VAULTS AND MANHOLES



A-1130



A-1120



A-1135

## Cast Iron Manhole Cover and Frame

TELEPHONE COMPANY TYPE  
FOR HEAVY TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1131	27 Dia.	44 Dia.	10	660	\$90.00
A-1132	27 Dia.	44 Dia.	6	600	80.00
A-1133	30 Dia.	47 Dia.	10	780	105.00
A-1134	30 Dia.	47 Dia.	6	650	100.00

Special Tread. Painted: One Coat Bituminous Paint. Machined Fit.

## Cast Iron Manhole Cover and Frame

ELECTRIC OR TELEPHONE  
FOR HEAVY TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1120	30 Dia.	47 Dia.	10	780	\$105.00
A-1121	30 Dia.	47 Dia.	6	650	100.00

Special Tread. Painted: One Coat Bituminous Paint. Machined Fit.

## Manhole Cover and Frame

TELEPHONE COMPANY TYPE  
FOR PARKWAY

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1135	27	32	1½	225	\$47.50
A-1136	30	35	1½	260	54.00

Special Tread. Painted: One Coat Bituminous Paint. Machined Fit.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

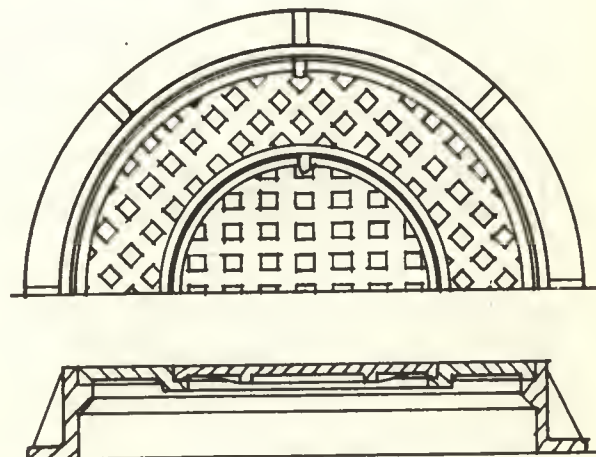


## COVERS FOR VAULTS AND MANHOLES

### Cast Iron Vault or Large Manhole Head TWO CONCENTRIC COVERS

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1513	42	56	10	1100	\$370.00

Conforms to Navy Plate No. 12 - Pattern No. 3 Electric Vault Manhole. Square Block Tread. Machined Cover Seats. Painted: One Coat Bituminous Paint. Net Opening of Inside Cover 24".

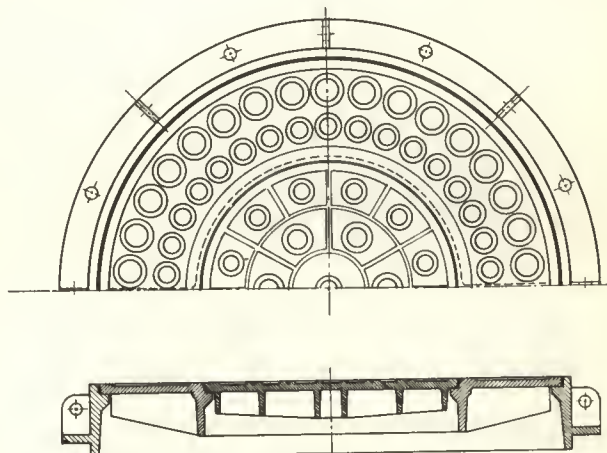


A-1513

### Cast Iron Large Street Type Manhole Head TWO CONCENTRIC COVERS

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1514	44	53	7 1/4	975	\$325.00

Conforms to Bureau of Water Works and Supply. Raised Tread. Machined Cover Seats. Net Opening of Inside Cover 24".

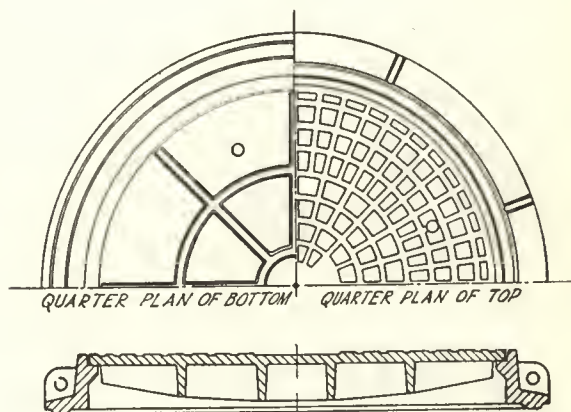


A-1514

### Manhole Frame and Cover LARGE STREET TYPE

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1480	34 1/4	43 1/2	4 1/4	610	\$130.00

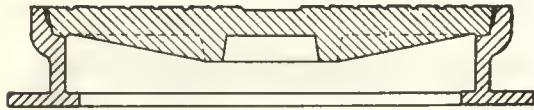
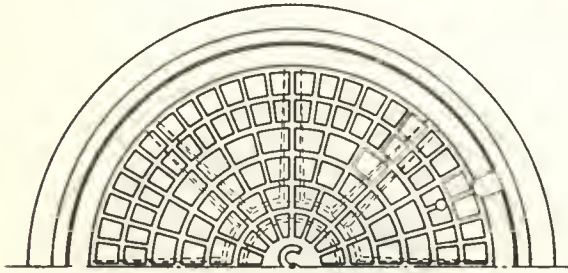
Square Block Tread. Painted: One Coat Bituminous Paint, Cover and Ring Machined to Fit. Conforms to the Metropolitan Water Dist. Dwg.-No.-E-2257.



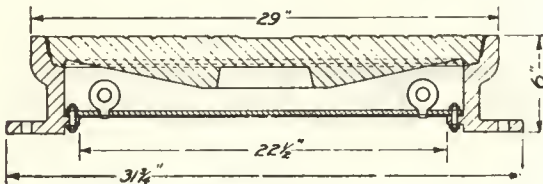
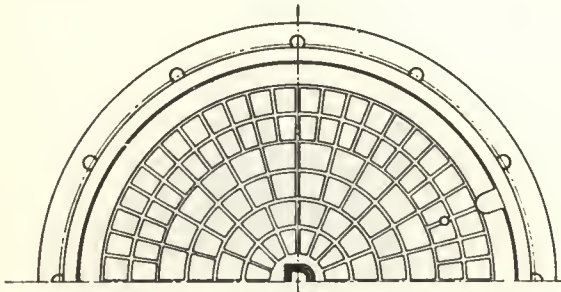
A-1480



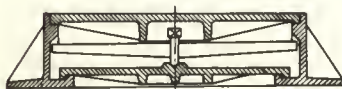
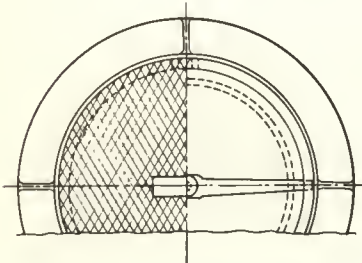
## MANHOLE RINGS AND COVERS



A-1490



A-1500



A-1505

### Los Angeles Standard Non-Rocking Manhole Frame and Cover

FOR HEAVY TRAFFIC

CONFORMS TO CITY OF LOS ANGELES DESIGN NO. B-2855

PLATE NUMBER	CLEAR, OPENING	OVERALL FLANGE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1490	23 3/4	31 3/4	6	475	\$70.00

Also Furnished with Inner Pan. Square Block Tread. Painted: One Coat Bituminous Paint. Cover and Ring Machined to Fit. Lettered to Suit.

### Standard Pressure Manhole Frame and Cover

HEAVY DUTY

CONFORMS TO CITY OF LOS ANGELES DESIGN NO. B-1842

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1500	22 1/2 Dia.	31 3/4 Dia.	6	525	\$110.00

Raised Block Tread. Lettered to Suit. Has 5/16" Thick Steel Inner Pressure Plate, fastened with 12 Bronze Studs and has Gasket between Plate and Frame. All Seats of Cover and Pressure Plate are Machined to Fit. Anchor bolts can be furnished on specification and are extra. Painted: One Coat Bituminous Paint.

### Manhole Frame and Cover with Locking Inner Pan

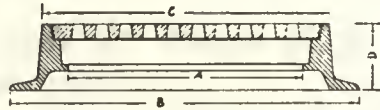
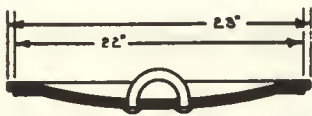
FOR MEDIUM TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1505	24	39	8	600	\$120.00

Low Pressure Gas, Water and Steam Manhole. Diamond Tread. Seats of Cover & Pressure Plate Machined to Fit. Painted: One Coat Bituminous Paint.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## MANHOLE FRAMES AND COVERS



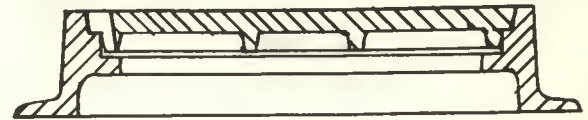
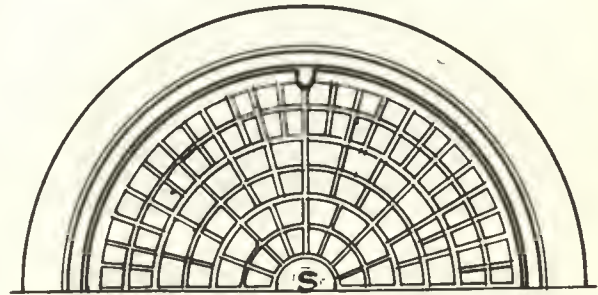
A-1172 - Inner Pan    A-1171 - with Grate Cover

### Standard Sewer or Storm Drain Manhole Heads

GENERAL USAGE MANHOLE FOR HEAVY TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1170	22½	33½	6	460	\$55.00
A-1171 - Same as above, Grating Cover				400	55.00
A-1172 - Inner Pan					12.00

Raised Block Tread, Covers and Frames Machined to Fit, Painted: One Coat Bituminous Paint, Letter Designation to Suit.



A-1170

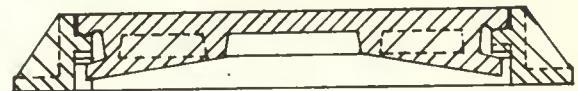
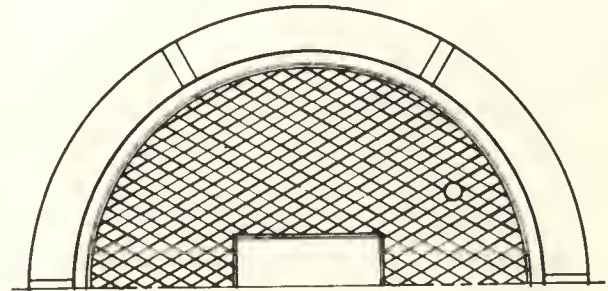
### Locking Type Standard Manhole Head

GENERAL USAGE MANHOLE FOR HEAVY TRAFFIC

By turning the cover but a few degrees engages two fingers on the cover along an inclined plane on the frame, locking or releasing the cover.

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1175	22-3/4	30-1/4	4-1/8	365	\$49.35

Conforms to L.A. County Dwg. Sa 117, Diamond Tread. Covers and Frames Machined to Fit, Painted: One Coat Bituminous Paint, Letter Designation to Suit.



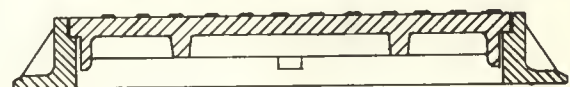
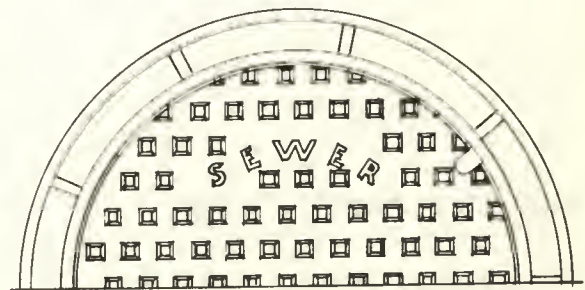
A-1175

### Orange County Standard Manhole Ring and Cover

GENERAL USAGE MANHOLE FOR HEAVY TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1270	23½	34	6	440	\$50.00

Square Block Tread, Cover Guides, 5-3/4" Round Vent Holes. Covers and Frames Machined to Fit, Painted: One Coat Bituminous Paint, Lettered Designation to Suit.



A-1270

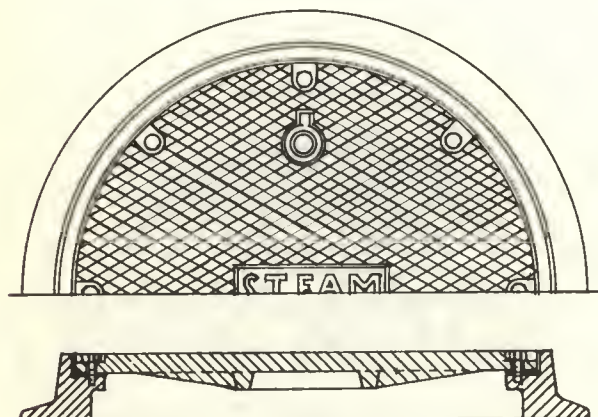


## PRESSURE MANHOLE FRAMES AND COVERS

### Series A1250B C.I. Water-Tight Manhole Head

#### TRAFFIC STRENGTH

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1251B	36	44	6	680	\$140.00
A-1252B	30	38	6	590	100.00
A-1253B	26	34	4	380	80.00
A-1254B	24	32	4	300	65.00
A-1254AB	24	36	6	420	80.00
A-1255B	20	28	4	140	55.00
A-1256B	18	26	3	80	50.00

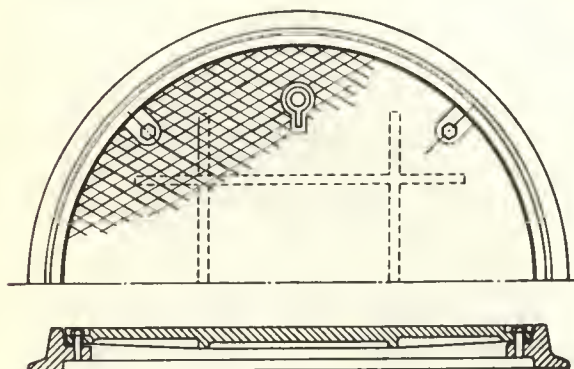


**A-1250B**  
Bolted Down Cover

Diamond Tread. Covers and Frames are Machined. Fitted with Composition Gasket and Bolted down with Brass Bolts. Covers are Fitted with Hinged Ring Lifts. Lettered Designation to Suit. Painted: One Coat Bituminous Paint.

### Series A1260B C.I. Water-Tight Manhole Head FOR PARKWAY

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1261B	36	45	3½	570	\$130.00
A-1262B	30	37	3	300	80.00
A-1263B	26	34	3½	250	55.00
A-1264B	24	31	3	240	47.00
A-1265B	20	28	2¾	140	40.00
A-1266B	18	25½	2¾	110	30.00
A-1267B	16	24	2¾	72	28.00
A-1268B	12	19	2¾	45	20.00

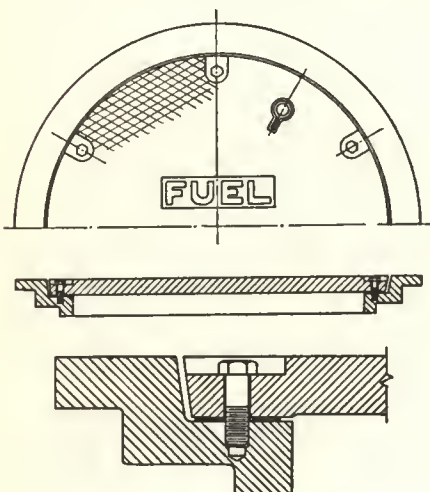


**A-1260B**  
Bolted Down Cover

Diamond Tread. Covers and Frames are Machined. Fitted with Composition Gasket and Bolted Down with Brass Bolts. Covers are Fitted with Hinged Ring Lifts. Lettered Designation to Suit. Painted: One Coat Bituminous Paint.

### Series A1520 C.I. Water-Tight Frames and Covers HEAVY DUTY FOR OVER FUEL OR BLOW-OFF TANKS

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1521	24	34	3½	440	\$80.00
A-1522	30	40	3½	580	100.00



**A-1520**

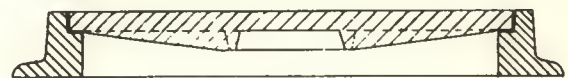
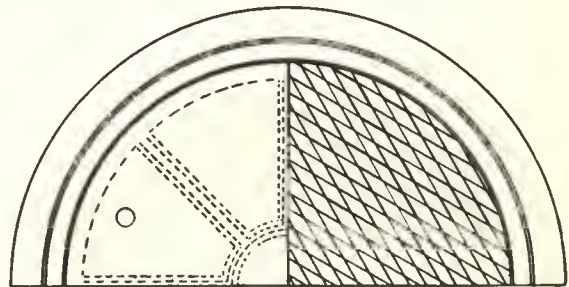
Covers and Frames are Machined. Fitted with Lead Gasket and Bolted down with Brass Bolts. Covers are fitted with Hinged Lift Handles. Lettered to suit. Painted: One Coat Bituminous Paint.



## MANHOLE FRAMES AND COVERS

### Series A1250 General Usage Manhole Cover FOR TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	SHIPPING WEIGHT	LIST PRICE
A-1251	36	44	6	680	\$110.00
A-12511	30	42	8	780	120.00
A-1252	30	40	6	525	75.00
A-1253	26	34	4	350	55.00
A-12531	26½	37	6	400	60.00
A-1254	24	32	4	300	42.00
A-12541	24	36	6	420	56.00
A-12542	24	36	8	475	61.00
A-12543	24	42	10	510	66.00
A-1255	20	28	4	240	34.00
A-1256	18	26	3	170	24.00

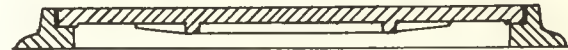
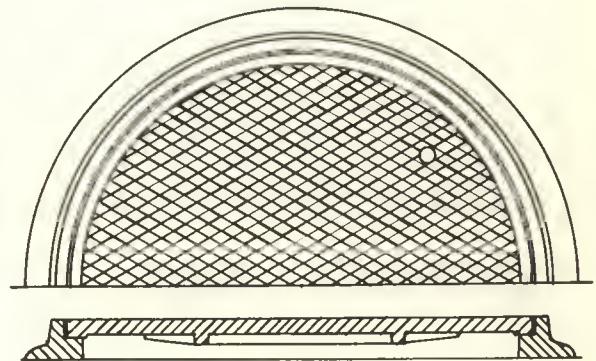


A-1250

Diamond Tread Furnished. Raised Block Tread Optional. Bar Type Open Grating Furnished in Lieu of Solid Cover at same price. Covers and Frames Machined Fit. Covers Lettered to Suit Requirements. Painted: Bituminous Paint.

### Series A1260 Parkway Manhole Cover and Frame

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	SHIPPING WEIGHT	LIST PRICE
A-1261	36	45	3½	500	\$100.00
A-1262	30	37	3	300	55.00
A-1263	26	34	3½	240	38.00
A-1264	24	31	3	195	32.00
A-1265	20	28	2¾	140	28.00
A-1266	18	25½	2¾	110	18.00
A-1267	16	24	2¾	72	16.00
A-1268	12	19	2¾	40	14.00



A-1260

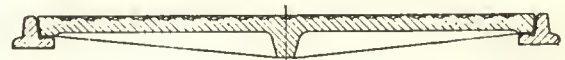
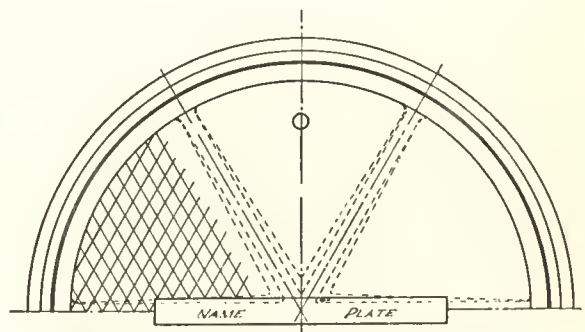
Diamond Tread. Covers and Frames Machined to Fit. Covers Lettered to Suit Requirements. Painted: One Coat Bituminous Paint.

### Manhole Cover and Frame for Catch Basins

#### PARKWAY TYPE

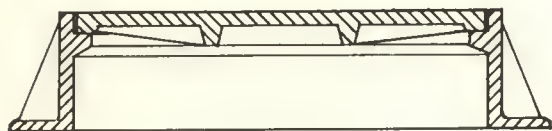
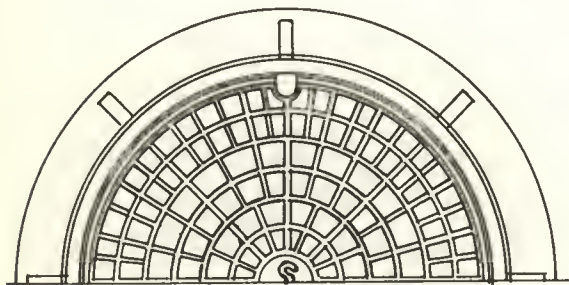
CONFORMS TO CITY OF LOS ANGELES B2189  
AND STATE OF CALIF. SPECIFICATIONS

PLATE NUMBER	MATERIAL SPEC.	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROX. WEIGHT	LIST PRICE
A-1530	Black	22	26	1½	130	\$27.40
A-1531	Galv.	22	26	1½	130	38.40
A-1532	Galv. CL40	22	26	1½	130	45.50



A-1530

## MANHOLE FRAMES AND COVERS



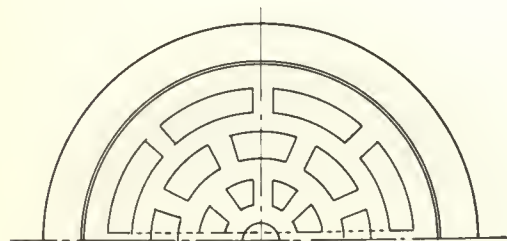
Spec. 42Ya - Plate No. 12

### Navy Standard Manhole Covers and Frames

SPECIFICATION 42Ya—PLATE NO. 12

PATTERN NUMBER	AREA USED	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROX. WEIGHT	LIST PRICE
1	Paved	20½	36	9	440	\$68.50
2	Unpaved	20½	36	9	330	52.00
4	Paved	23	38	9	435	68.00
5	Unpaved	23	35	7½	350	55.00

For Pattern No. 3 - See Page 15 - No. A 1513.

Covers for Storm Manholes to be Solid or Perforated as Specified.  
Machined Cover Seats, Painted: One Coat Bituminous Paint.

A-1420

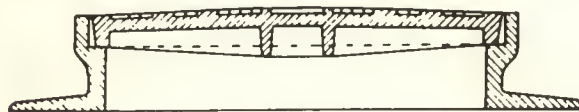
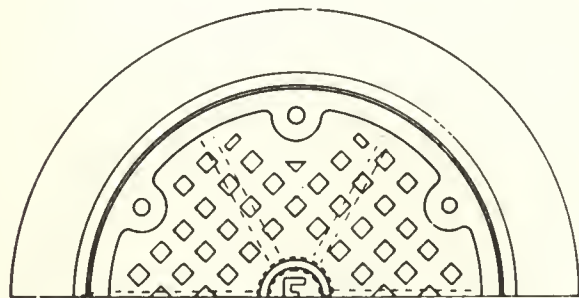
### Manhole Covers and Frames

U. S. WAR DEPARTMENT TYPES—NAVY SPEC. 42Ya—PLATE NO. 13

PLATE NUMBER	CLEAR OPENING	OVERALL TOP	HEIGHT	COVER THICKNESS	APPROXIMATE WEIGHT	LIST PRICE
A-1421	30	39½	4	1¼	475	\$76.00
A-1422	24	33½	4½	1¾	495	80.00
A-1423	24	33½	5	1	415	66.40
*A-1424	24	33½	4	1¼	340	54.40
A-1425	24	28½	3	1	190	31.00
A-1426	20	29½	4	1	190	31.00

\*Conforms: Navy - Patt. No. 6.

Special Tread. Machined Seats, Painted: Bituminous Paint.



A-1320

### P.W.O. Standard Manhole Covers and Frames

U. S. NAVAL BASE—SAN DIEGO, CALIF.

PLATE NUMBER	NAVY DRAWING	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1320	F-10-5-S30	24	36	6	420	\$56.00
A-1321	10-5-124	27	39	6½	555	80.00
A-1322	F-10-5-S31	30	46	8	700	110.00

Square Block Tread. Machined Cover Seats, Letter Designation to Suit Requirements. Painted: One Coat Bituminous Paint.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

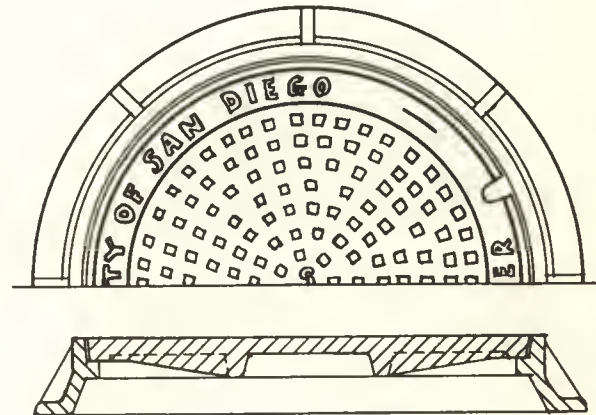


## MANHOLE FRAMES AND COVERS

### San Diego Type Manhole Cover and Frame

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1310	22	31	4	380	\$45.00

Raised Block Tread. Lift Holes. Cover and Ring, Machine Fit. Painted: One Coat Bituminous Paint. For Heavy Traffic.

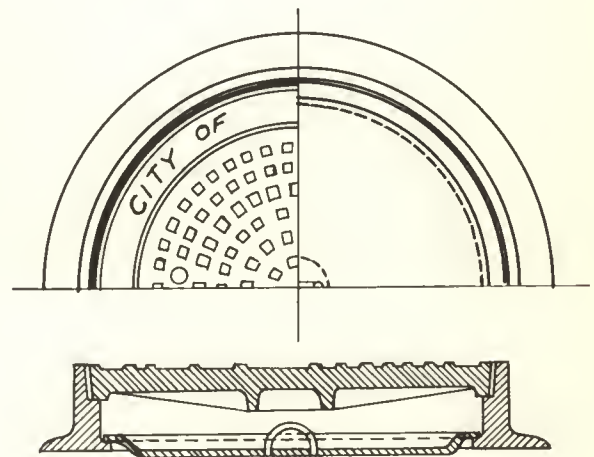


A-1310

### Manhole Cover and Frame

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1312	21 1/4	31 1/4	5	380	\$57.00
A-1312 -	Less Inner Pan	-----	-----	-----	45.00

Raised Block Tread. Machined Seats. Painted: One Coat Bituminous Paint.



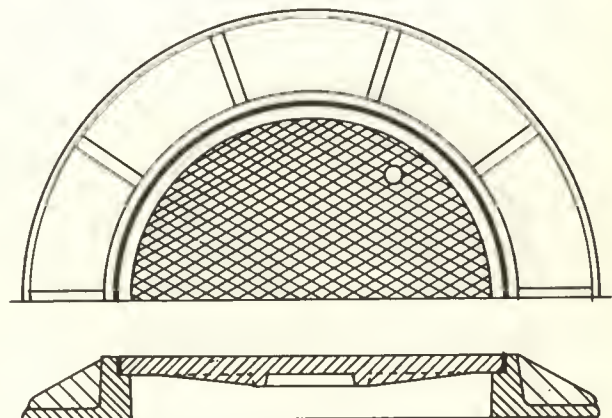
A-1312

### Special Manhole Cover and Frame

TRAFFIC WEIGHT—LARGE DIAMETER FLANGE

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1254-40	24	40	4 1/4	500	\$60.00

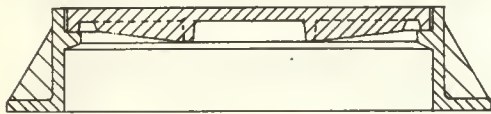
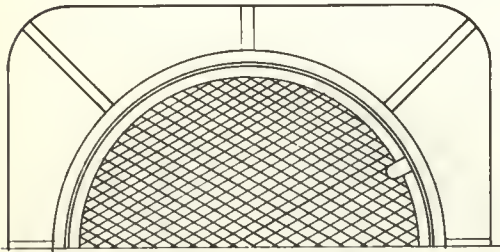
Diamond Tread. Special Large Extra Heavy Flange. Machined Seats. Painted: One Coat Bituminous Paint. Currie Pattern.



A-1254-40  
Special Flange



## MANHOLE FRAMES AND COVERS



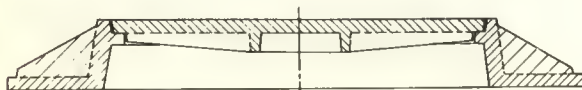
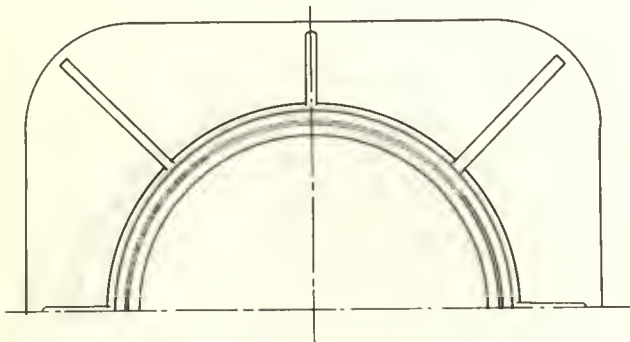
A-1140

### Manhole Covers and Frames

U. S. TREASURY DEPARTMENT TYPE—TRAFFIC

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1140	27	38x38	10	600	\$82.50

Diamond Tread. Machined Seats. Painted: One Coat Bituminous Paint.



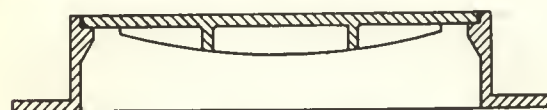
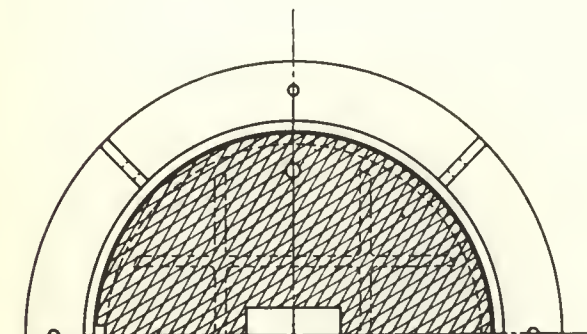
A-1142

### Manhole Covers and Frames

U. S. CIVIL AERONAUTICS TRAFFIC STYLE

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1142	30	49x49	6	900	\$125.00

Raised Diamond Tread. Machined Seats. Painted: One Coat Bituminous Paint.



A-1410

### Cast Iron Manhole Covers and Frames

PACIFIC NAVAL BASE TYPE

PLATE NUMBER	NAVY DRAWING	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1411	I-N26-200	22	32	5½	340	\$54.00
A-1412	I-N26-200	28	40	7	515	66.00

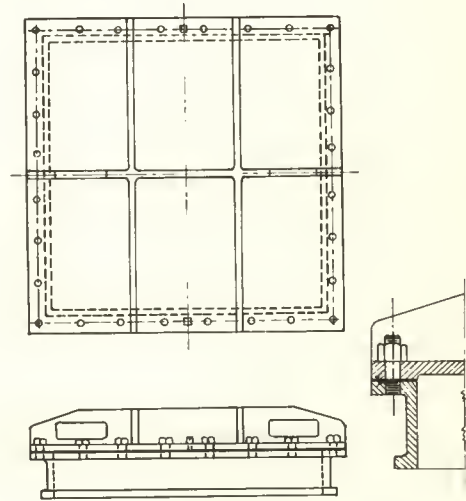
Raised Diamond Tread. Letter Designation as Desired. Machined Seats. Painted: One Coat Bituminous Paint.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

### Pressure Manhole Frame and Cover

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	TOTAL HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-1385	20x24	24x27	4	225	\$140.00
A-1386	22x24	26x28	4	250	155.00
A-1387	24x24	28x28	4	270	167.00
A-1388	24x27	28x31	4	300	186.00

Cover and Frames are Machined. Fitted with Rubber Gasket and Bolted Down with  $\frac{3}{4}$ " Bronze Studs and Hex. Nut. Conforms to Metropolitan Water Dept. Drawing - E. 2252.

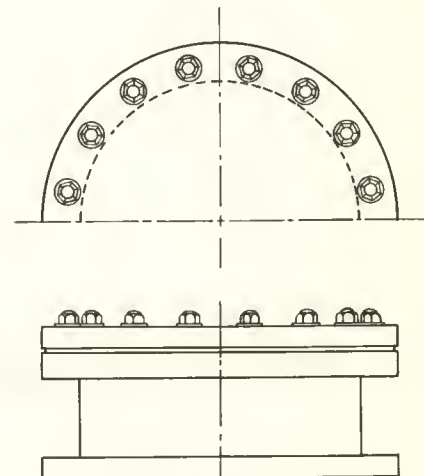


A-1385

### Pressure Manhole Head

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1390	18	25	12	550	\$154.00
A-1391	24	32	12	1070	275.00
A-1392	30	38 $\frac{3}{4}$	12	1500	400.00

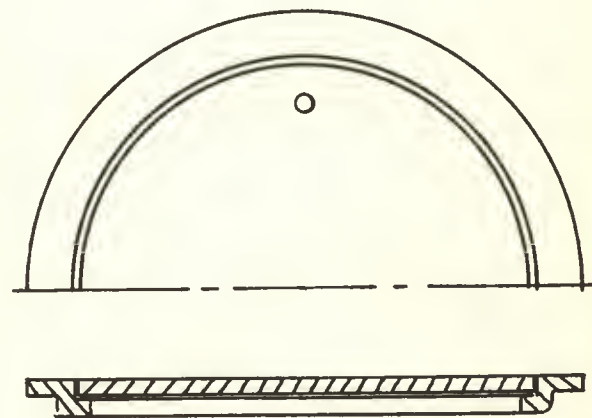
Heavy Pressure Type. Cover and Frame Machined. Fitted with Rubber Gasket and Bolted Down with  $\frac{3}{4}$ " Bronze Studs & Hex Nuts. Bottom Flange can be drilled for Std. C.I. Pipe.



A-1390

### Series A1300 Cistern or Cesspool Cover and Frame

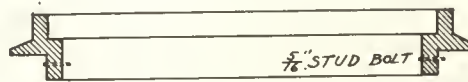
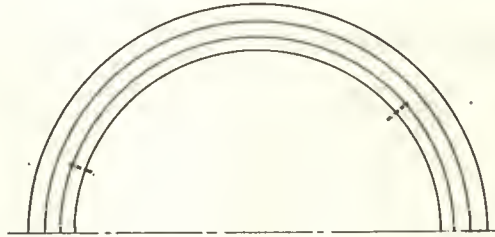
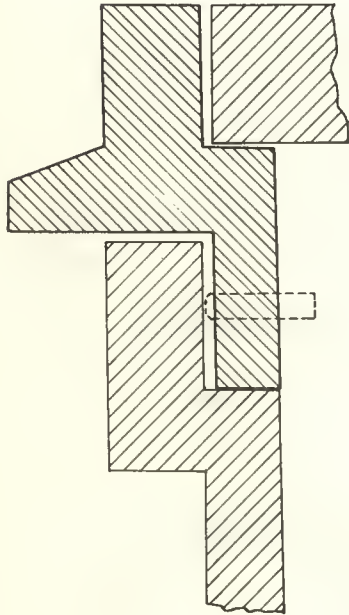
PLATE NUMBER	CLEAR OPENING	OVERALL FRAME	HEIGHT FRAME	SHIPPING WEIGHT	LIST PRICE
A-1301	31	33	1 $\frac{1}{4}$	220	\$40.50
A-1302	25	27	1 $\frac{1}{4}$	146	25.00
A-1303	19	20 $\frac{1}{2}$	1 $\frac{1}{4}$	70	17.00



A-1300

## W. B. CAST IRON RAISING RINGS FOR MANHOLE FRAMES

REG. U. S. PATENT OFFICE NO. 2,431,082



No. A-1180

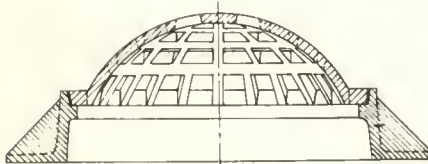
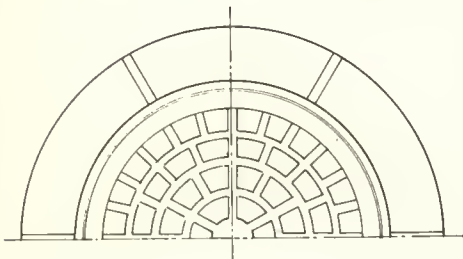
RAISING RINGS MADE IN FOUR ELEVATIONS - 2"- 2½"- 3" AND 3½".

SEATS MACHINED

Painted: Bituminous Paint

Prices on Application.

## CAST IRON MANHOLE HEAD WITH TIDEWATER GRATING



A-1254-TG

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT RING	TOTAL HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-12541-TG	24	36	6	12½	315	\$82.00

Ring and Grate Machined to Fit.

Painted: One Coat Bituminous Paint.

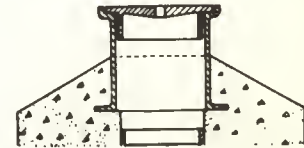


## FRAMES AND COVERS

### Lamphole Frame and Cover FOR SEWER LINE INSPECTION AND EXAMINATION

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1240	10	15	12	110	\$27.20
A-1241	11½	17	12	115	30.00

Painted: Bituminous Paint.

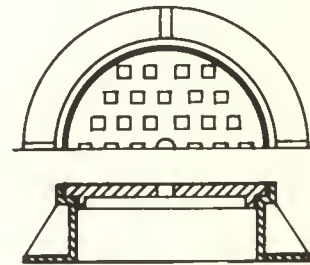


A-1240

### Monument Marker Handhole Frame and Cover STATE OF CALIFORNIA STANDARD

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1242	10	15	7	80	\$17.50

Painted: Bituminous Paint.

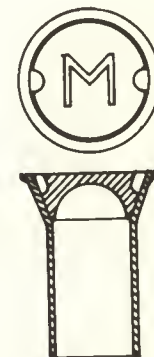


A-1242

### Monument Handhole Frame and Cover

PLATE NUMBER	CLEAR OPENING	DIAMETER TOP	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-2920	3¾	7½	12	43	\$12.50

Painted: Bituminous Paint.

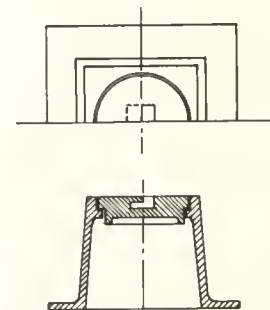


A-2920

### Test Station Marker

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-2922	6¾	15½x15½	9	80	\$21.75

Painted: Bituminous Paint.

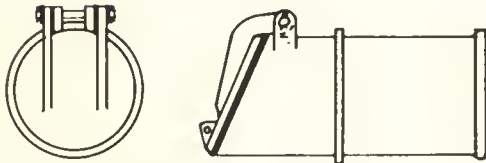


A-2922

## CONSTRUCTION CASTINGS

## Standard Flushing Gates

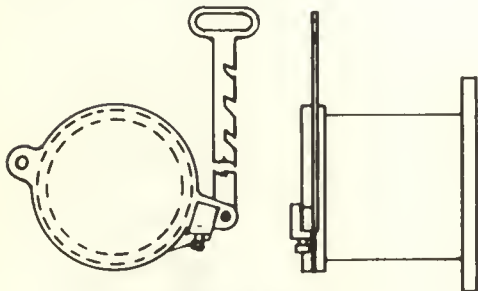
BRASS MOUNTED SEATS



SERIES A-3670

PLATE NUMBER	PIPE SIZE	APPROXIMATE WEIGHT	SPIGOT OUTLET	HUB OUTLET	FLANGED OUTLET
A-3670	4	24	\$26.50	\$32.20	\$38.30
A-3671	6	40	34.15	42.15	49.15
A-3672	8	56	46.70	59.00	67.00
A-3673	10	130	63.75	74.60	84.60
A-3674	12	170	80.00	96.50	111.00
A-3675	14	260	PRICE ON APPLICATION		
A-3676	16	380			
A-3677	18	500			
A-3678	20	720			
A-3679	24	1230			

For Flushing Sewer and Drain Lines. Also used for Tide and Flood Water Control. Manually Operated. Includes 12 Ft. Chain, Ring and Hook.



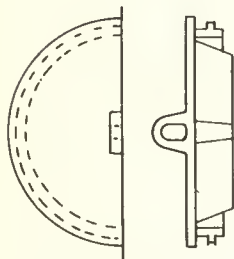
SERIES A-3680

## Shear Gate Valves

BRASS MOUNTED—SPRING TENSION

PLATE NUMBER	PIPE SIZE	APPROXIMATE WEIGHT	SPIGOT OUTLET	HUB OUTLET	FLANGED OUTLET
A-3680	4	25	\$30.50	\$36.20	\$42.30
A-3681	6	40	39.15	47.15	54.15
A-3682	8	56	52.70	65.00	73.00
A-3683	10	130	70.75	81.60	91.60
A-3684	12	170	88.00	104.50	119.00

Includes 10 Ft. Ratchet Lift. Adjusting Screws.

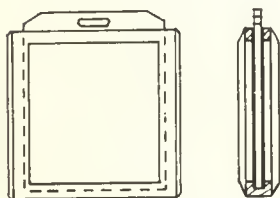


SERIES A-3850

## Direct Lift Valves

PLATE NUMBER	SIZE OPENING	SIZE TOP	DEPTH VALVE	APPROXIMATE WEIGHT	LIST PRICE
A-3850	4	9	4½	27	\$22.00
A-3851	6	11	5	40	30.00
A-3852	8	13½	5	68	35.00
A-3853	10	15	5	140	63.00
A-3854	12	17	6	190	80.00

Machined Seats.



A-3857

## Slide Gates

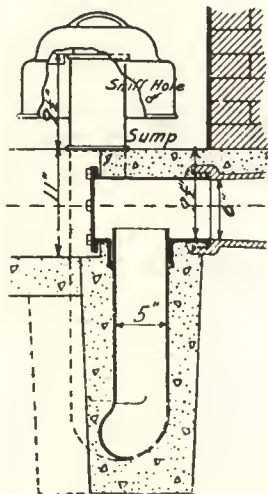
CAST IRON FRAMES—BOILER PLATE SLIDE

MADE TO ORDER ONLY

PRICES ON APPLICATION

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## MANHOLE HARDWARE



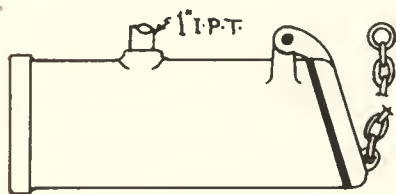
A-3690

### 5" Miller-Potter Manhole Syphon Flusher

PLATE NUMBER	DIAMETER SYPHON	SIZE SEWERS	APPROXIMATE WEIGHT	AVERAGE DISCHARGE CUBIC FEET PER SECOND	LIST PRICE
A-3690	5	6 or 8	245	.73	\$93.50

For Usage Where Volume of Water is Insufficient for Cleansing Action - or Grade too Gradual.

Fully Automatic and Adjustable to timing.



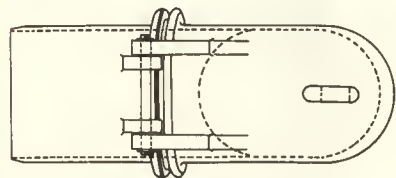
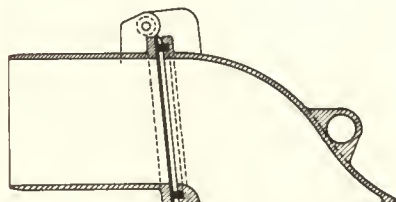
A-3770

### 8" Manhole Flushing Valve

MANUALLY OPERATED

PLATE NUMBER	PIPE SIZE	APPROXIMATE WEIGHT	LIST PRICE
A-3770	8	95 #	\$65.00

Extra Heavy Type.



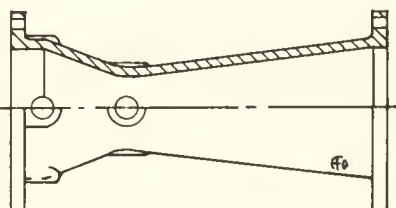
SERIES A-4010

### Cast Iron Manhole Trap Castings

FOR FORMING A WATER SEAL IN MANHOLE TO SEAL OFF GASES IN SEWER LINES ENTERING MANHOLE

PLATE NUMBER	LINE SIZE	LENGTH OVERALL	DEPTH SEAL	APPROXIMATE WEIGHT	LIST PRICE
A-4011	8	21	1 1/2	50	\$56.18
A-4012	10	24	1 1/2	60	87.65
A-4013	12	28	1 1/2	75	110.00

Painted: Bituminous Paint. Conforms to L.A. County Dwg-SA-211.



A-3776

### C. I. Venturi Fitting, Flanged

PLATE NUMBER	PIPE SIZE	LENGTH OVERALL	DIAM. THROAT	APPROXIMATE WEIGHT	LIST PRICE
A-3777	4	14	2-1/8	60	\$41.00
A-3778	5	17-1/2	2-1/2	78	55.00
A-3779	6	23-1/8	3	105	62.50

Bosses at Inlet and Throat for Auxiliary Inlets.

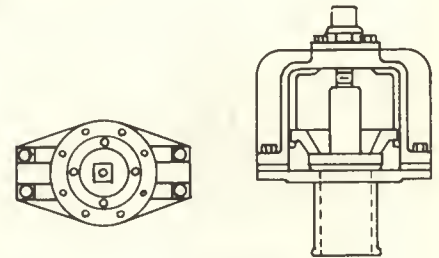


## DRAIN OR MUD VALVES

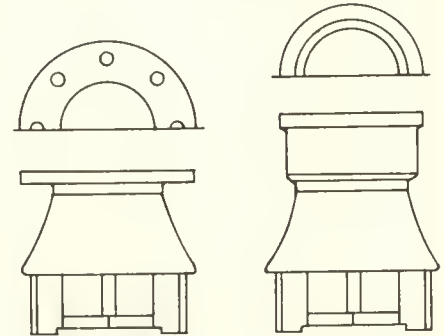
IRON BODY, BRASS MOUNTD—NON RAISING STEM  
FOR DRAINS—BLOW OFF IN SUMPS  
SETTLING BASINS—IRRIGATION AND  
FILTRATION PLANTS

PLATE NUMBER—SIZE	4	6	8	10	12
A-3561-Spigot End	\$60.00	\$77.00	\$96.00	\$120.00	\$147.50
A-3562-Flanged End	60.00	77.00	96.00	120.00	147.50

Extension Stems and Fittings Made as Required.  
Drawings and Measurements Furnished on Application.



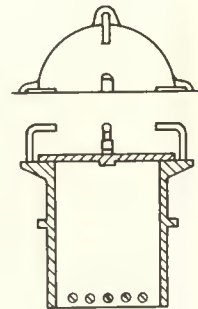
A-3560



A-3632

A-3633

PIPE SIZE	LAI D HEIGHT	DIAM. BASE	DIAM. FLARE	FLOOR TO FLARE	LIST PRICE
4	12	8	8¾	6	\$27.50
6	13	10	11	7	34.50
8	14	12½	13½	8	40.00
10	15	14½	15½	8	50.00
12	15	17	18	8	62.50



A-3631

## A3631—PRESSURE RELIEF VALVES

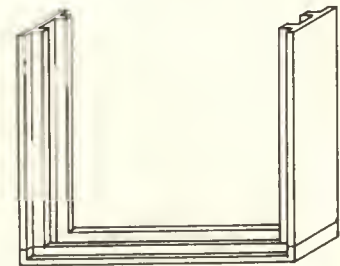
BRONZE MOUNTED—GRATING INLET

4" Diameter Pipe — Made in Lengths to Suit. Price on Application.

## A3630—STOP PLANK GROOVES

SECTIONAL

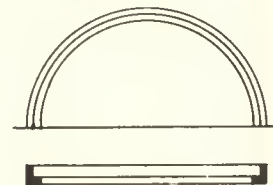
Made to Order Only in Widths for Metal Plate — Planks or Logs. For embedding in Concrete or Other Fastenings. Price on Application.



A-3630

## A3634—SPARK-PROOF RING FOR MANHOLE HEADS

Made to Order Only. Cast of Brass or Lead to Fit any Pattern Ring and Cover.  
Price on Application.



A-3634

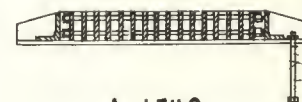
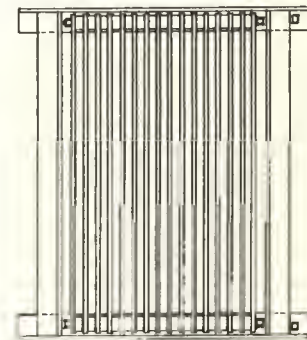
ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## STEEL CATCH BASIN GRATE AND FRAME FOR HEAVY TRAFFIC

### Grate and Frame Made for Catch Basin Inlets

Conforms to various City, County and State Standards



A-1540

Multiple Units made up by use of H Beam Supports

Prices for Multiple Units on Application

PLATE NUMBER	NET OPENING	OVERALL FRAME	HEIGHT FRAME	SIZE BARS GRATING	NUMBER BARS GRATING	APPROXIMATE WEIGHT	SINGLE UNIT	
							BLACK	GALVANIZED
A-1540	25½x35-3/8	36½x41-3/8	4	½x3½	16	475	\$90.00	\$135.00
A-1542	24x35-1/2	35x41-3/8	4	½x3½	15	446	82.00	123.00
A-1544	18x35-1/2	29x41-3/8	4	½x3½	9	312	60.00	85.00

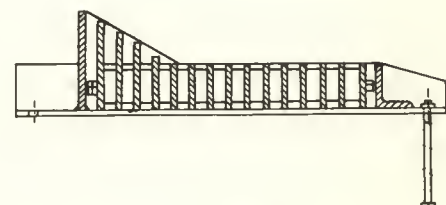
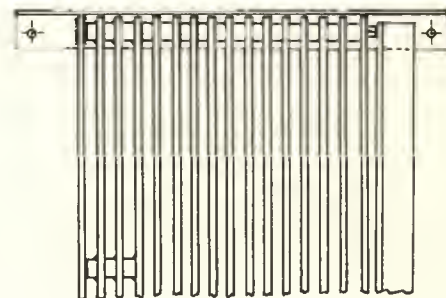
## CATCH BASIN GRATE AND FRAME FOR ROLLED GUTTER

PLATE NUMBER	NET OPENING	FRAME OVERALL	HEIGHT FRAME	TOTAL HEIGHT	APPROXIMATE WEIGHT
A-1548	24x35-5/8	35x42	4	8½	530

PRICE  
BLACK GALVANIZED

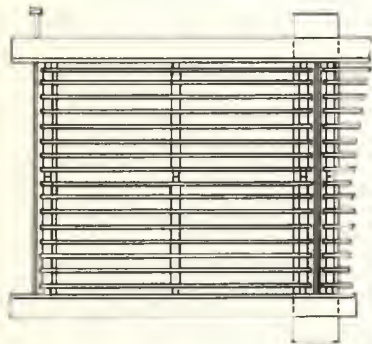
\$97.00 \$146.00

Conforms to Various City, County  
and State Standards.



A-1548

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



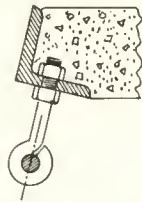
A-1560

## Extra Heavy Steel Sectional Frames and Gratings

### GENERAL DIMENSIONS, SINGLE SECTION

OVERALL FRAME	NET OPENING	HEIGHT FRAME	SIZE BARS GRATING	LENGTH BEAM
42x52½	36x36	5	½x4½	Varies
PLATE NUMBER	NUMBER UNITS	APPROXIMATE WEIGHT		LIST PRICE
A-1561	1	725		\$132.00
A-1562	2	1465		274.00
A-1563	3	2207		414.00

Conforms to L.A. County Road Dept. No. 4  
Painted: One Coat Bituminous Paint.



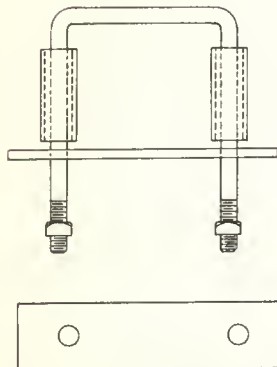
A-1565

## Protection Bar Assembly

### FOR CURB INLETS

PLATE NUMBER	12" END ANCHORS	SLEEVES	¾" ROD	SUPPORT BOLT
1565	1.50 Pair	2.60 Pair	.47 Foot	\$2.35 Each

Finish Galvanized.  
Conforms to L.A. County Standards.



A-1566

## Drop Lift Handles

### FOR ALL TYPES CONCRETE COVERS

PLATE NUMBER	BAR SIZE	WIDTH	HEIGHT	PRICE
1566	½	5	7	1.47

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## CURB ARMOR

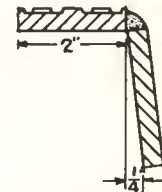
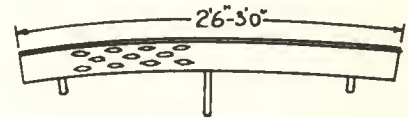
### Safety Steel Curb Armor GALVANIZED

PLATE NUMBER	WIDTH	DEPTH	LENGTH PER SECTION	APPROXIMATE WEIGHT	LIST PRICE PER FOOT
A-3470	2-3/8	2 3/4	2'6" to 3'0"	7 # Ft.	\$3.65*

Conforms to L.A. Dwg. B1604 - Case I. Galvanized after Fabrication.

\*See Price Sheet for Quantity Prices.

When Ordering Give Radius of Curve and Length of Arc.



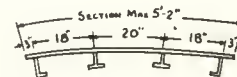
A-3470

### Cast Iron Armor for Concrete Curb

PLATE NUMBER	* HEIGHT	MAX. LENGTH PER SECTION	APPROXIMATE WEIGHT	LIST PRICE PER FOOT
A-3472	8	5'2"	21 # Ft.	\$4.00

Conforms to L.A. Dwg. B1895.

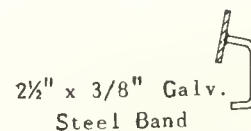
\*Special Heights Cast on Specification. Batter 1 1/4 inch in 12 inches. When Ordering Give Radius of Curve and Length of Arc.



A-3472

### State and County Type Curb Armor GALVANIZED

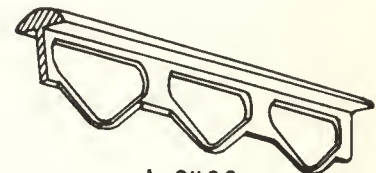
PLATE NUMBER	SIZE BAR	APPROXIMATE WEIGHT	LIST PRICES PER FOOT
A-3480	3/8x2-1/2	4 1/2 # Ft.	Black \$1.65 Galv. \$2.35



A-3480

### Truscon Bar for Curb Protection GALVANIZED

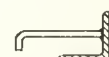
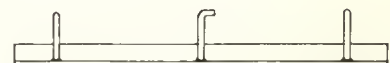
PLATE NUMBER	WIDTH FACE	DEPTH OVERALL	FINISH	FULL LENGTH	WEIGHT FOOT	LIST PRICES PER FOOT
A-3490	1 1/4	2	Galv.	10 Ft.	1.3 #	\$ .70



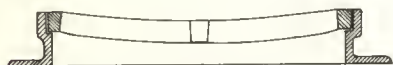
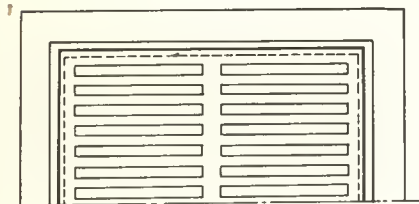
A-3490

### Angle with Anchors for Catch Basins

PLATE NUMBER	SIZE ANGLE	APPROXIMATE WEIGHT	LIST PRICES PER FOOT BLACK GALVANIZED
A-3902	3 1/2 x 3 1/2 x 5/16	8 # Ft.	\$1.75 \$2.50
A-3903	3 1/2 x 3 1/2 x 3/8	9 1/2 # Ft.	2.05 2.95
A-3904	3 1/2 x 3 1/2 x 1/2	12 # Ft.	2.60 3.75



A-3902



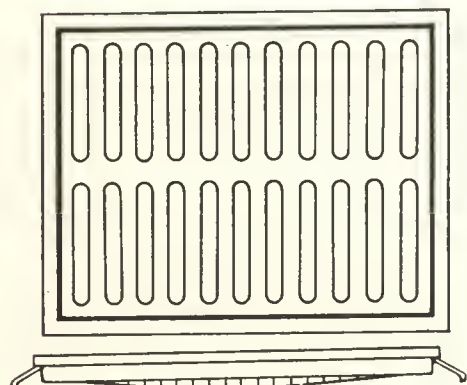
A-1855

### Concave Grate Catch Basin Head

TRAFFIC STRENGTH

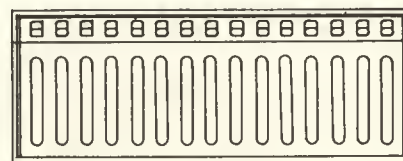
PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1855	26 3/8	37 5/8	5 1/4	525	\$85.00

Painted: Bituminous Paint.



A-1280

### Cast Steel Highway Curbing, Grating and Frames

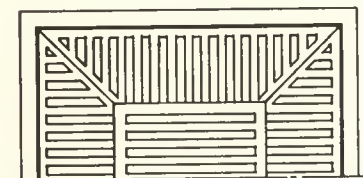


A-1290



PLATE NUMBER	LENGTH OVERALL	HEIGHT OVERALL	DEPTH	WEIGHT	LIST PRICE
A-1280	37 3/4	29 1/4	1 3/4	320	\$80.50
A-1290	38	16 3/4	2 1/4	380	100.00

Conforms to State of California Standards.



A-1850

### Raised Grate Catch Basin Head

PLATE NUMBER	CLEAR OPENING	OUTSIDE FRAME	HEIGHT FRAME	TOTAL HEIGHT	SIZE TOP	APPROX. WEIGHT	LIST PRICE
A-1850	26	30	4	9-5/8	12	180	\$72.00

Painted: Bituminous Paint.

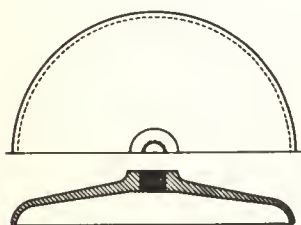
### Bases for Movable Pipe Stanchions

AUTOMOBILE CLUB TYPE

PLATE NUMBER	DIAM.	TAPPED I. P. S.	APPROXIMATE WEIGHT	LIST PRICE
A-241	18	2	40	\$8.50
A-242	15	1 1/4	21	6.00
A-243	12 1/2	1	21	4.45

Tapping Size may vary on Specification.

Painted: Aluminum Paint.



A-240

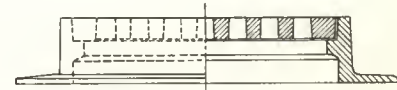
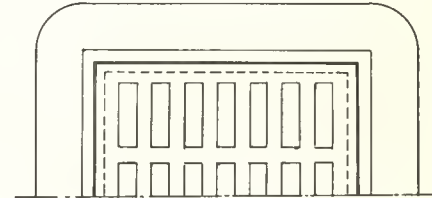
ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## NAVY TYPE GRATES AND FRAMES

### NAVY SPEC. 42Y $\alpha$ TRAFFIC STYLE

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
No. 14	22x22	35x35	6	450	75.00

Grate Carefully Fitted to Frame.  
Painted: Bituminous Paint.

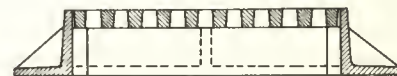
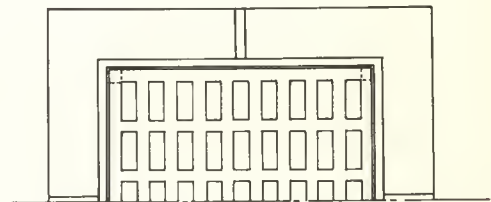


No. 14

### NAVY SPEC. 42Y $\alpha$ PARKWAY STYLE

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
No. 15	22x22	35x35	6	300	\$ 50.00

Grate carefully Fitted to Frame.  
Painted: Bituminous Paint.

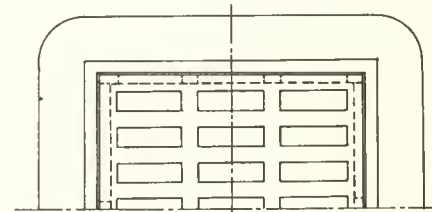


No. 15

### NAVY SPEC. 42Y $\alpha$ TRAFFIC STYLE

PLATE NUMBER	CLEAR OPENING	OVERALL BASE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
No. 16	22x22	35x35	7	485	\$85.00

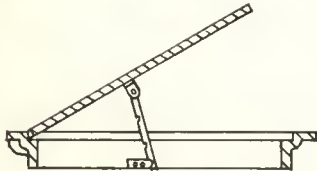
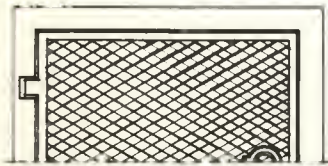
Concave Grate Carefully Fitted to Frame.  
Painted: Bituminous Paint.



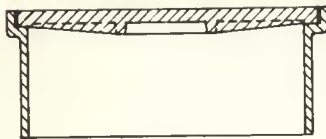
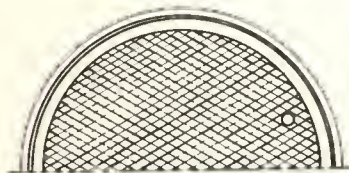
No. 16



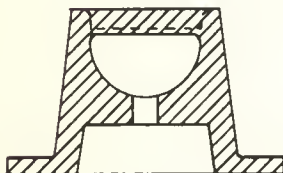
### Basement Hinged Cover and Frame WITH RACHET LIFT



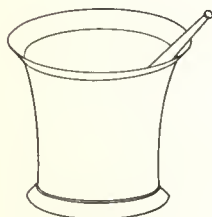
A-1400



A-12545



A-2225



A-2670

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-1401	30x36	35x41	3	225	\$100.00
A-1402	22½x22½	28x28	3	145	67.50
A-1403	19½x19½	24½x24½	3	105	48.75
A-1404	24x30	30¾x36¾	3	200	90.00

Deduct, if Furnished Without Lift - - - \$10.00  
Diamond Tread. Painted: Bituminous Paint.

### Floor Thimble Ring and Cover

PLATE NUMBER	CLEAR OPENING	HEIGHT	APPROXIMATE WEIGHT	LIST PRICES	
				LOOSE COVER	BOLTED COVER
A-12545	24	10	500	\$80.00	\$100.00

Cover Furnished Loose or Bolted down with Gasket.  
Bolted Cover Furnished with Drop Handle.

### Airplane Mooring Eye FOR CASTING IN CONCRETE

PLATE NUMBER	DIAMETER TOP	BASE	HEIGHT	APPROXIMATE WEIGHT	LIST PRICE
A-2225	5½	9	6	43	\$12.00

Painted: Bituminous Paint.  
Conforms to Navy P.W.O.-Dwg. No. NA11/N10 (1).

### Mortars and Pestles GROUND FINISH

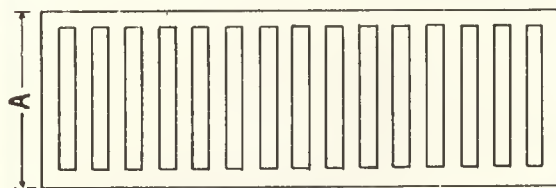
PLATE NUMBER	CAPACITY QUARTS	DIAMETER	APPROXIMATE WEIGHT	LIST PRICE
A-2671	½	5	7½	\$3.00
A-2672	¾	5½	8	3.50
A-2673	1	6	11	5.00
A-2674	3	8¾	17½	9.00

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## GRATINGS, COVERS AND FRAMES

### C. I. Sectional Trench Grating or Solid Covers

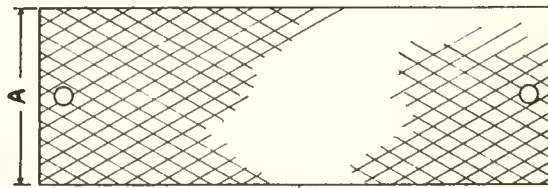
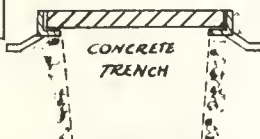
WITH OR WITHOUT ANGLE STEEL FRAMES



A2400 GRATE ONLY

A2420 GRATE WITH FRAME

24" LONG SECTIONS



A2410 COVER ONLY

A2430 COVER WITH FRAME

24" LONG SECTIONS

#### LIST PRICES PER LINEAL FOOT

C. I. PAINTED—WIDTH "A"	6"	8"	10"	12"	14"
A-2400 — Grate Only.	\$2.45	\$3.25	\$4.00	\$5.75	\$7.50
A-2420 — Grate with Frame	3.95	4.75	5.50	7.25	9.00
A-2410 — Cover Only	2.45	3.25	4.00	5.75	7.50
A-2430 — Cover with Frame	3.95	4.75	5.50	7.25	9.00

Galvanized Price on Application.

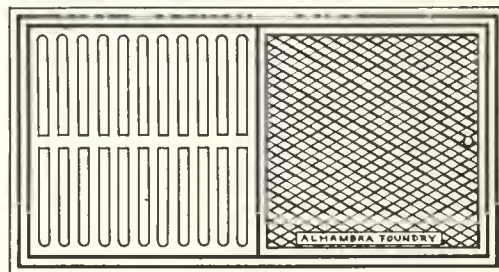
### C. I. Sand Trap Head—Half Grating,

HALF SOLID COVER

PLATE NUMBER	OVERALL COVERS	STRENGTH	HEIGHT FRAME
A-2014	24x48	Standard	1½
A-2018	24x48	Full Traffic	2½

PLATE NUMBER	APPROX. WEIGHT	LIST PRICE	
		BLACK	GALVANIZED
A-2014	210 Lbs.	\$48.00	\$78.00
A-2018	450 Lbs.	96.00	155.00



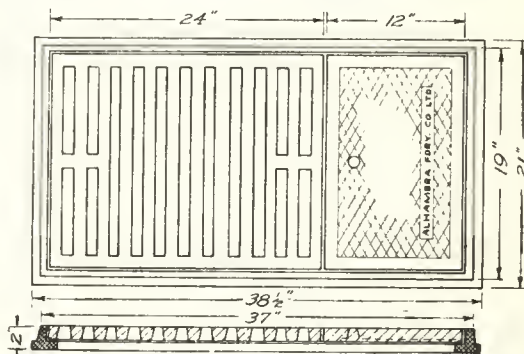
A-2014 STANDARD WEIGHT

A-2018 TRAFFIC WEIGHT

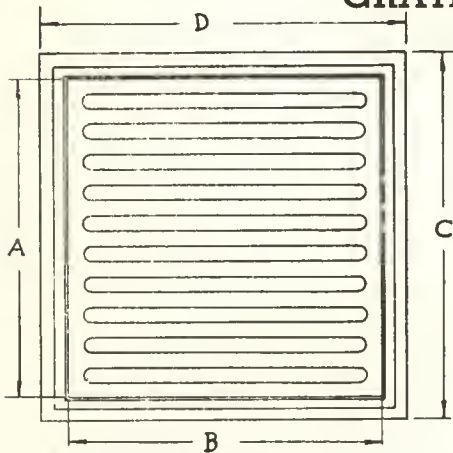
### C. I. Garage Sand Trap Frames and Covers

PLATE NUMBER	APPROXIMATE WEIGHT	LIST PRICE
A-2040	165	\$45.00

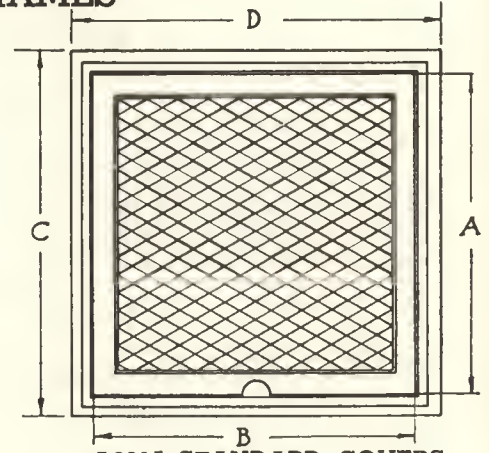
Detail of Concrete and connections furnished on application.



## GRATINGS, COVERS AND FRAMES



A2010 STANDARD GRATINGS  
A2012 TRAFFIC GRATINGS



A2015 STANDARD COVERS  
A2017 TRAFFIC COVERS

TO SPECIFY SIZE OF GRATE OR COVER WITH FRAME, USE SIZES A & B  
STANDARD WEIGHT A2010 GRATING OR 2015 COVER

GRATE SIZE "A" & "B"	FRAME SIZE "C" & "D"	FRAME HEIGHT "E"	APPROXIMATE WEIGHT	COMPLETE	CAST IRON		
					BLACK GRATE	COMPLETE	GALVANIZED GRATE
6x6	8x8	1	8	\$ 3.10	\$ 2.05	\$ 3.80	\$ 2.55
8x8	10x10	1	14	3.50	2.30	5.10	3.48
10x10	12x12	1	20	4.05	2.65	6.90	4.50
12x12	14x14	1½	37	6.60	3.30	11.25	7.28
14x14	16x16	1½	40	7.20	4.80	12.25	8.18
16x16	18x18	1½	55	9.00	6.00	15.30	10.20
18x18	20x20	1½	68	12.30	8.25	21.00	16.00
20x20	22x22	1½	86	15.00	10.00	25.75	16.95
22x22	24x24	1½	115	16.50	10.95	28.10	18.60
24x24	26x26	1½	123	19.20	12.30	31.35	21.00
26x26	28x28	1½	134	22.50	15.00	38.25	25.50
29x29	31x31	1½	152	26.10	17.40	44.15	30.00
31x31	33x33	1½	168	30.00	20.00	51.00	34.05
38x38	40x40	1½	236	42.75	28.50	72.70	48.45
16x20	18x22	1½	91	16.50	10.75	28.00	18.60
12x16	14x18	1½	41	12.00	8.00	20.40	13.40
12x18	14x20	1½	50	12.75	8.20	21.70	14.40
12x24	14x26	1½	62	14.25	9.50	24.22	16.20
18x24	20x26	1½	71	17.55	11.70	30.00	20.90
18x30	20x32	1½	115	22.50	15.00	38.25	25.50
22x28	24x30	1½	130	27.50	18.00	45.00	32.50
16x34	18x36	1½	125	27.50	18.00	45.00	32.50
24x36	26x38	1½	170	30.00	20.00	51.00	34.05
24x48	26x50	1½	210	38.40	24.60	62.70	42.00

## HEAVY TRAFFIC WEIGHT A2012 GRATING OR A2017 COVER

12x12	14x14	1½	70	\$13.20	\$ 6.60	\$22.50	\$14.50
14x14	17x17	2	86	14.40	9.60	24.50	16.35
18x18	21x21	2½	145	24.60	16.50	42.00	32.00
20x20	23x23	2½	180	30.00	20.00	51.50	34.00
24x24	27x27	2½	235	38.40	24.60	62.70	42.00
26x26	29x29	2½	283	45.00	30.00	76.50	51.00
31x31	34x34	2½	360	60.00	40.00	102.00	68.10
38x38	41x41	2½	545	85.50	57.00	145.40	97.00
18x24	21x27	2½	150	35.10	23.40	60.00	41.80
18x30	21x33	2½	240	45.00	30.00	76.50	51.00
24x36	27x39	2½	365	60.00	40.00	102.00	68.10
24x48	27x51	2½	450	76.80	49.20	125.40	84.00

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

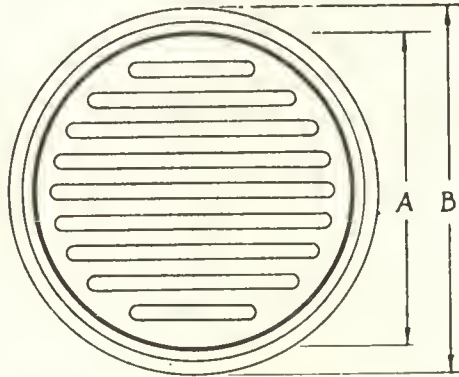




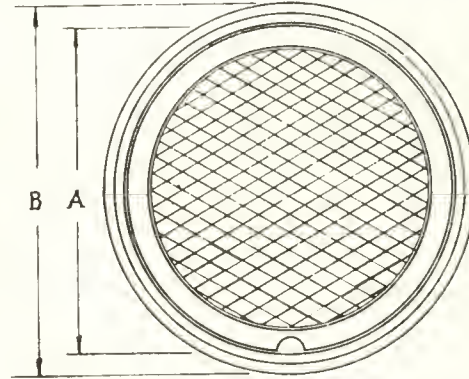
## FRAMES, GRATES AND COVERS

Round Frames, Gratings and Covers

STANDARD AND HEAVY TRAFFIC WEIGHTS



A2020 STANDARD GRATINGS  
A2022 TRAFFIC GRATINGS



A2025 STANDARD COVERS  
A2027 TRAFFIC COVERS

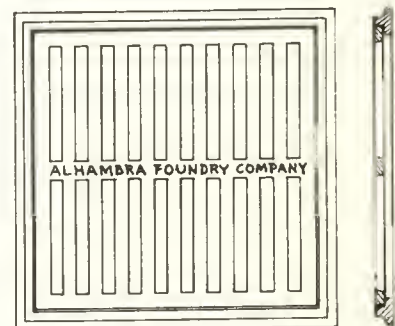
When Ordering Give Size as Diameter of Grate or Cover "A"

GRATE DIAMETER "A"	FRAME DIAMETER "B"	HEIGHT FRAME "C"	APPROXIMATE WEIGHT	COMPLETE	CAST IRON		GALVANIZED	
					BLACK GRATE	COMPLETE	GRATE	COMPLETE
6	8	1	6	\$3.75	\$2.50	\$4.35	\$2.90	
8	10	1	11	4.35	2.90	5.45	3.70	
10	12	1	16	5.05	3.40	6.65	4.40	
12	14	1½	30	8.25	5.50	11.25	7.50	
14	16	1½	38	9.00	6.00	12.80	8.50	
16	18	1½	44	11.25	7.50	15.65	10.40	
18	20	1½	55	15.35	10.20	20.85	13.90	
20	22	1½	69	18.75	12.50	25.65	17.10	
22	24	1½	92	24.00	16.00	33.20	22.10	
24	26	1½	103	28.10	18.70	38.40	25.60	

SOLID COVERS with Raised Diamond Tread Furnished on Specification at Same Prices as for gratings. Traffic Weight or Extra Heavy Gratings, Covers and Frames are Charged at Double the Above List Prices. Gratings are ground to fit frames. Painted: One Coat Asphaltic Paint.

### A2011—Brass Frames and Grates

SIZE GRATE	SIZE FRAME	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICES	
				POLISHED	CHROME PLATED
12x12	13x13	7/8	18	\$15.00	\$20.00
18x18	19x19	7/8	44	32.50	45.00
18x24	19x25	7/8	58	45.00	60.00



A-2011

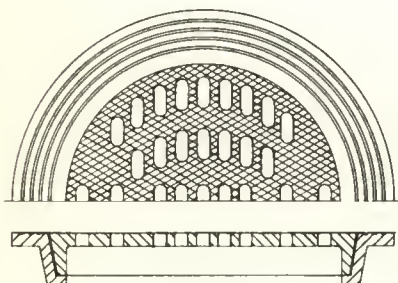
All Brass Frames and Grates. Finished Top.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## GRATES AND FRAMES

Grates and Frames to Fit Hubs of Large Crockery  
Pipe for Dry Wells

FOR HEAVY TRAFFIC



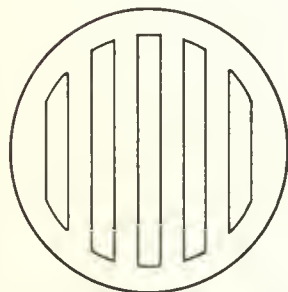
A-2220

PLATE NUMBER	CROCK PIPE	APPROXIMATE WEIGHT	LIST PRICE
A-2221	24	365	\$60.00
A-2222	18	220	38.00
A-2223	15	160	30.00

Frame Flange Entirely Shields Pipe.

## Grates to Fit Standard Crockery Hubs

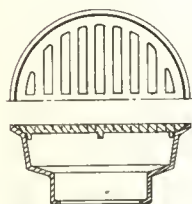
HEAVY PATTERN



A-2230

PLATE NUMBER	PIPE SIZE	GRATE DIAMETER	APPROXIMATE WEIGHT	LIST PRICE
A-2231	3	4-1/2	2	\$ 1.30
A-2232	4	5-7/8	4	1.70
A-2233	6	8-1/2	9	2.40
A-2234	7	9-1/2	14	3.20
A-2235	8	10-1/2	20	4.60
A-2236	10	13-3/4	30	6.50
A-2237	12	15-1/4	42	9.30
A-2238	14	17-5/8	48	10.40
A-2239	15	18	55	12.60
A-2240	24	29 1/2	180	41.50

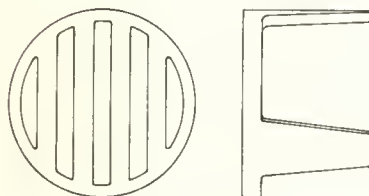
## A338—Area Drain



A-338

SIZE OUTLETS	TOP	CAST IRON BLACK	GALVANIZED	P.B. TOP BLACK	GALVANIZED	ADD TO BRASS TOP CHROME PLATE
2-3 or 4	9	\$6.00	\$10.50	\$12.80	\$17.70	\$5.10

## Gratings to Fit C. I. Soil Pipe Hubs



A-329

SIZE	LIST PRICE	SIZE	LIST PRICE
2	\$ .70	5	\$1.40
3	.80	6	2.20
4	1.00	8	4.50
		10	6.00

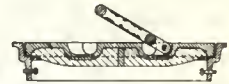
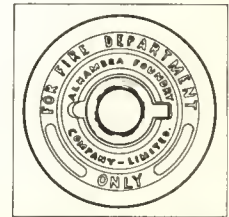
ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## BUILDING SPECIALTIES

### Brass Fire Hose Basement Inlets FINISHED BRASS TOP

PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-371	8	12x12	1 3/4	15	\$12.50

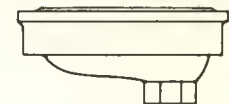
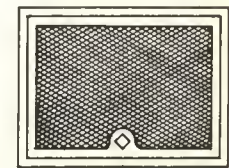


A-371

### Special Brass Street Washer WITH CONCEALED HINGE

PLATE NUMBER	SIZE INLET	SIZE HOSE	SIZE TOP	SPECIFICATIONS	LIST PRICE
A-392	1	1	6 1/2 x 5 1/2	Diamond or Finished	\$37.50
A-392A	3/4	3/4	6 1/2 x 5 1/2	Diamond or Finished	37.50

Furnished with 3/4" Drain Outlet, Add 2.50

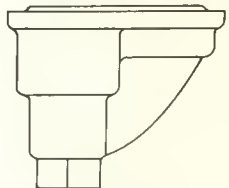
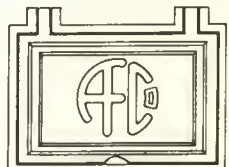


A-392

### Standard Brass Street Washer ALL BRASS

PLATE NUMBER	SIZE INLET	SIZE HOSE	SIZE TOP	APPROXIMATE WEIGHT	LIST PRICE
A-393C	3/4	3/4	4-3/8 x 3-1/2	4	\$ 14.00

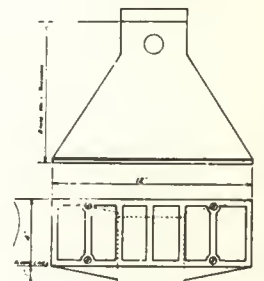
Boxes Furnished with Operating Key.



A-393C

### Scuppers for Automatic Sprinklers WITH FLAP VALVES

PLATE NUMBER	SIZE GRATE	SIZE OUTLET	WALL THICKNESS	LIST PRICE
A-2030	4x12	4x4	State When Ordering	\$15.00

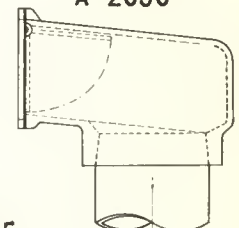
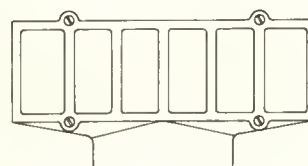


A-2030

### Scuppers for Automatic Sprinklers 4" I.P.T.—BOTTOM OUTLET

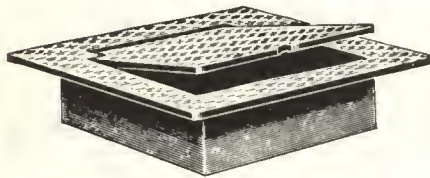
PLATE NUMBER	SIZE GRATE	FACE GRATE C/L OUTLET	DEPTH OVERALL	FRONT TO BACK	LIST PRICE
A-2035	4x12	5 1/4	6 1/4	8 1/2	\$20.00

With Flap Valve.



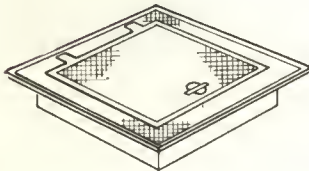
A-2035




**A-2280**

### Sidewalk Frames with Hinged Covers FOR VALVE OR CLEANOUT ACCESS

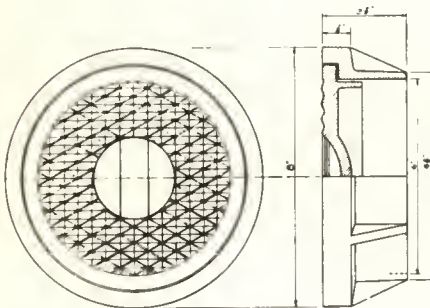
PLATE NUMBER	CLEAR OPENING	OVERALL FLANGE	DEPTH SKIRT	APPROXIMATE WEIGHT	LIST PRICE
A-2281	6x6	8½x8½	4	8	\$ 6.00
A-2282	8x8	10½x10½	4	12	8.00
A-2283	12x12	14½x14½	4	22	12.50
A-2291	6x6	8½x8½	1½	6	5.00
A-2292	8x8	10½x10½	1½	9	7.00
A-2293	12x12	14½x14½	1½	15	10.00


**A-391**

### Hinged, Locking Cover with Frame FOR VALVES AND FILLING LINES

PLATE NUMBER	CLEAR OPENING	OVERALL TOP	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-391	12½x12½	18½x18½	4	40	\$37.50

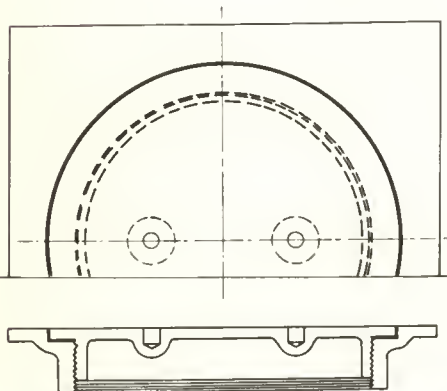
Diamond Tread.


**A-2090**

### Service Station Covers and Frames FOR USAGE OVER UNDERGROUND CONNECTIONS

PLATE NUMBER	CLEAR OPENING	OVERALL TOP	HEIGHT FRAME	APPROXIMATE WEIGHT	LIST PRICE
A-2091	6	8	2-5/8	12	\$ 8.00
A-2092	8	10	2-5/8	18	10.00
A-2093	12	14	2-5/8	28	12.00

Diamond Tread, Lift Handle.


**A-390**

### Brass Oil Fill Line Covers FINISHED TOP—WITH KEYS

PLATE NUMBER	PIPE SIZE	OVERALL TOP	APPROXIMATE WEIGHT	LIST PRICE
A-390	3	8x8	9	\$14.00
A-390	4	8x8	9	14.00

Removable Threaded Cover.

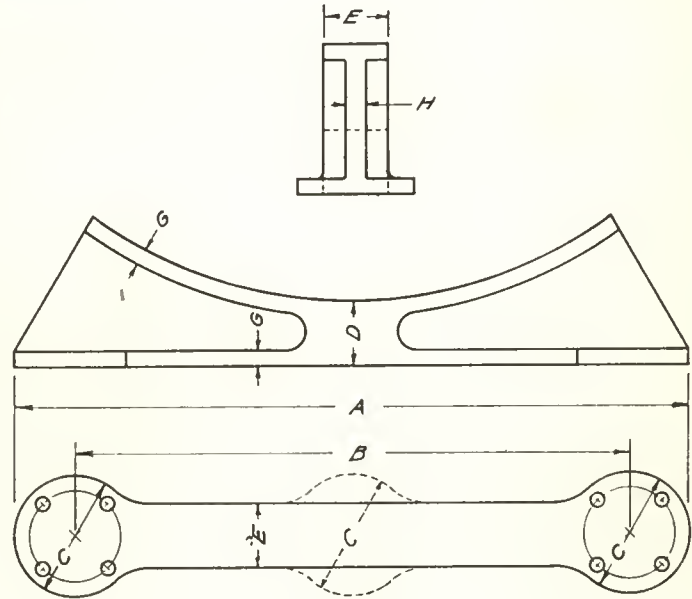
ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## CAST IRON SADDLE TANK SUPPORTS

### WITH INTEGRAL COMPANION FLANGES

PLATE NUMBER	DIA. OF TANK	SIZE FLANGE	A	B	C	D	APPROX. WEIGHT	LIST PRICE
A-2751	24	2	24	18	6	2	30	\$7.20
A-2752	30	2	30	24	6	2	37	8.90
A-2753	36	2	36	30	6	2	55	13.20
A-2754	42	2½	42	35	7	2½	83	19.00
A-2755	48	2½	48	41	7	2½	103	24.00
A-2756	54	3	54	46½	7½	3	170	36.00
A-2757	60	4	60	51	9	3	200	40.00
A-2758	66	5	66	56	10	4	310	60.00
A-2759	72	6	72	61	11	4	435	85.00

Integral Flanges are drilled to bolt circle standards.  
 Sizes 54" and larger have center flange.

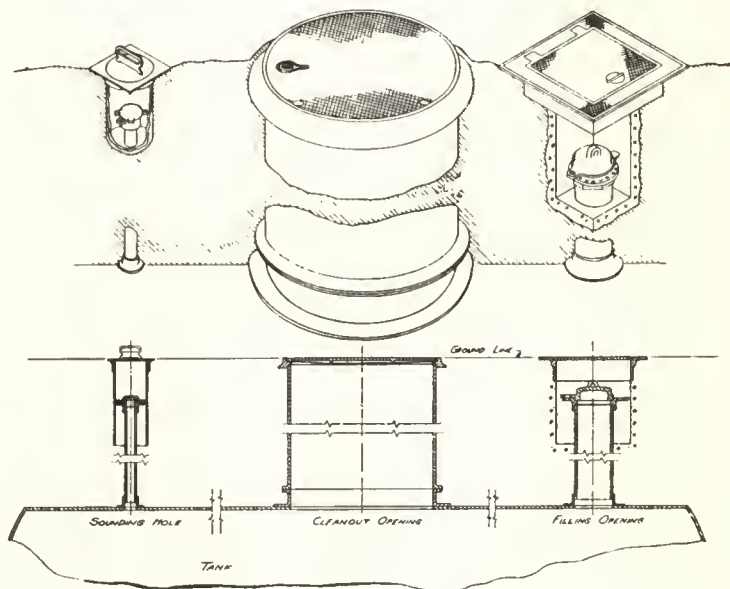


A-2750

## FITTINGS FOR UNDERGROUND OIL STORAGE TANK

### LIST PRICE

A-1254B	– 24" diameter opening C.I. Cleanout Cover and Frame. Watertight, Bolted-Down Cover and Gasket .....	\$ 65.00
A-391	– C.I. Fill Line Cover and Frame, size 18½" square, 12½" square opening, 4" deep .....	37.50
A-2803	– 6" Bronze Fill Line Coupling and Cap with lock lugs.....	15.00
A-390	– Bronze Sounding Line Cover with Plug.....	14.00
A-2805	– 2" Bronze Sounding Line Coupling and Cap with locking lugs.....	9.00
A-2806	– 4" Bronze Sounding Line Coupling and Cap with locking lugs .....	12.00

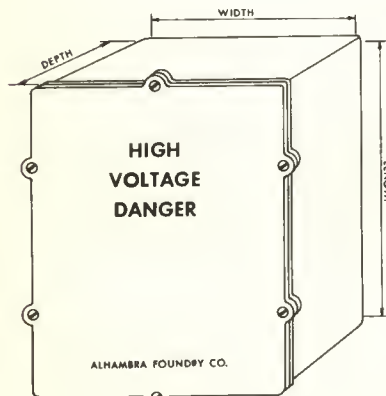


## ELECTRICAL PULL-IN OR JUNCTION BOXES

APPROVED BY UNDERWRITERS LABORATORIES

WATER-PROOF, BOLTED DOWN COVER AND GASKET.  
OUTLETS DRILLED AND TAPPED TO SUIT.

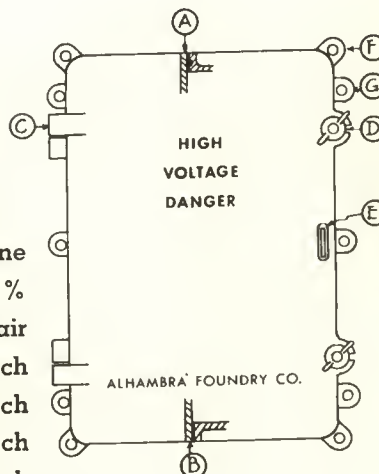
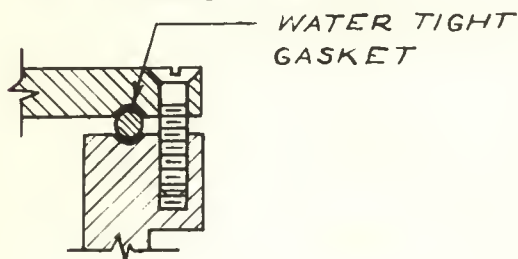
Measurements are for inside of box.



A-1680

## Variations — Add to List

- A-Standard Gasket . . . . . None  
 B-Explosion Proof . . . . plus 100%  
 C-Hinged Cover .. \$11.00 per pair  
 D-Drop Bolts . . . . . \$1.50 each  
 E-Padlock Eye . . . . . \$6.50 each  
 F-Mounting Lugs . . . . \$1.00 each  
 G-Back Mounting . . . . \$1.00 each



W—L—D	BLACK	GALVANIZED	WEIGHT
4x4x2	4.10	5.10	6½
4x4x3	5.05	6.25	8
4x4x4	6.00	7.25	9½
4x6x4	8.20	10.20	13
4x6x6	10.00	12.50	16
4x8x4	9.50	11.70	15
4x8x6	12.00	14.80	19
4x8x8	14.50	18.00	23
4x10x3	10.70	13.25	17
4x10x4	12.00	14.80	19
4x10x6	14.50	18.00	23
4x10x8	17.60	22.00	28
4x12x4	13.25	16.40	21
4x12x6	16.40	20.25	26
4x12x8	19.50	24.20	31
4x15x3	15.75	19.50	35
4x16x4	18.80	23.40	30
5x5x3	7.60	9.40	12
5x5x4	8.20	10.20	13
5x5x5	8.85	10.80	14
6x6x3	8.20	10.15	13
6x6x4	10.00	12.50	16
6x6x6	12.60	15.60	20
6x8x4	12.00	14.80	19
6x8x6	15.10	18.70	24
6x10x3	14.50	18.00	23
6x10x4	16.35	20.15	26
6x10x6	19.00	23.40	30
6x12x4	19.00	23.40	30
6x12x6	22.65	28.00	36
6x12x8	27.00	33.50	43
6x15x4	20.00	25.00	32
6x18x4	26.40	32.80	42
6x18x6	29.60	36.65	47
6x24x4	34.75	43.00	55
6x24x6	42.20	52.25	67
7x9x4	15.10	18.75	24
7x19x4	26.40	30.75	42
8x8x4	14.50	18.00	23
8x8x6	17.65	21.85	28
8x8x8	21.40	26.60	34
8x10x4	18.80	23.40	30
8x10x6	21.40	26.60	34
8x10x8	25.20	31.20	40
8x12x4	29.00	36.00	46
8x12x6	36.30	43.60	56
8x12x8	40.40	50.00	64
8x12x10	46.00	56.20	72

## Drilling and Tapping Charges

CONDUIT SIZE	DIAMETER OF SLIP HOLE	SLIP HOLE DRILL & TAP PRICE PER HOLE	PRICE PER HOLE
1/2	7/8	.25	.35
3/4	1 1/8	.25	.40
1	1 3/8	.30	.50
1 1/4	1 3/4	.60	1.00
1 1/2	2	.80	1.30
2	2 1/2	1.00	1.60
2 1/2	3	1.40	2.40
3	3 5/8	1.60	2.80
3 1/2	4 1/8	2.00	3.00
4	4 5/8	2.60	4.00
6	6 3/4	5.00	9.00

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## ELECTRICAL PULL-IN OR JUNCTION BOXES

APPROVED BY UNDERWRITERS LABORATORIES

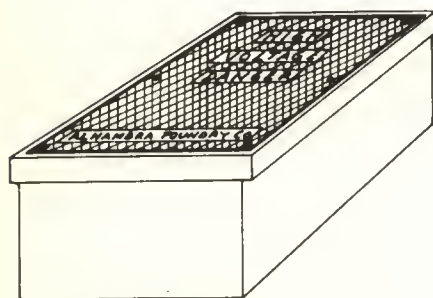
## A1680 Pull Boxes—Revised List of Sizes and Prices

W—L—D	BLACK	GALVANIZED	WEIGHT	W—L—D	BLACK	GALVANIZED	WEIGHT	W—L—D	BLACK	GALVANIZED	WEIGHT
8x14x4	32.00	33.20	53	12x30x6	78.75	97.50	125	20x20x6	88.75	110.00	141
8x14x6	37.80	46.80	60	12x30x8	90.00	111.50	143	20x20x8	100.00	126.00	158
8x16x6	41.60	51.50	66	12x30x12	113.00	140.00	180	20x20x10	110.00	136.50	175
8x16x8	47.20	58.50	75					20x20x12	121.00	150.00	192
8x18x6	44.10	54.60	70	12x36x6	95.00	117.50	151				
8x22x4	42.15	52.20	67	12x36x8	107.00	132.50	170	20x24x6	104.00	128.50	165
8x24x6	58.00	71.80	92	12x36x12	130.00	160.00	207	20x24x8	113.30	140.00	180
8x24x8	64.60	80.00	105					20x24x10	123.00	152.00	195
8x30x6	66.50	86.50	111	12x48x6	113.50	140.00	180	20x24x12	132.50	164.00	210
8x30x8	76.25	95.00	122	12x48x8	127.50	158.00	203				
8x30x10	84.00	104.00	133	12x48x12	150.00	185.00	238	20x31x10	130.00	162.00	208
								20x31x16	176.00	218.00	280
10x10x4	24.00	29.60	38	14x18x4	50.00	62.00	79	24x24x6	135.00	168.00	215
10x10x6	28.40	35.10	45	14x18x6	58.50	72.50	93	24x24x8	147.50	183.00	234
10x10x8	34.00	42.15	54	14x18x8	66.75	82.60	106	24x24x10	162.00	200.00	257
10x12x4	35.20	43.75	56					24x24x12	170.00	210.00	270
10x12x6	37.80	46.80	60	14x22x4	63.50	78.60	101	24x24x16	188.00	234.00	300
10x12x8	41.60	51.50	66	14x22x6	73.50	91.20	117				
10x16x6	50.40	62.50	80	14x22x8	84.50	105.00	134	24x30x6	141.50	176.00	226
10x16x8	55.50	68.75	88					24x30x8	150.00	195.00	247
10x16x10	60.50	75.00	96	16x16x4	54.80	68.00	87	24x30x12	227.00	280.00	360
10x18x6	54.00	67.00	86	16x16x6	63.00	78.00	100				
10x18x8	64.20	79.50	102	16x16x8	72.00	89.00	114	24x36x12	246.00	304.00	390
10x18x10	72.50	91.00	115	16x16x12	85.75	106.00	136	24x36x24	480.00	590.00	760
				16x24x6	82.50	105.00	135				
12x12x4	34.00	42.00	54	16x24x8	98.00	120.00	155	25x25x6	167.00	207.00	265
12x12x6	41.50	51.50	66	16x24x12	123.50	153.00	196				
12x12x8	47.00	58.50	75					25x31x10	217.00	260.00	334
12x12x10	55.00	68.50	87	18x18x6	77.50	96.00	123				
12x12x12	61.00	75.00	97	18x18x8	87.50	108.50	139	30x30x8	200.00	250.00	320
				18x18x10	95.00	118.00	151				
12x14x6	46.00	57.00	73	18x18x12	104.50	130.00	166	31x36x8	293.00	360.00	465
				18x18x14	115.00	144.00		31x36x10	315.00	390.00	500
12x16x4	49.00	61.00	78								
12x16x6	56.00	69.50	89	18x24x6	95.00	118.00	151				
12x16x8	63.00	78.00	100	18x24x8	107.00	132.50	170				
				18x24x10	118.50	147.00	188				
12x18x4	47.15	58.50	75	18x24x12	129.00	160.00	205				
12x18x6	58.25	73.30	94								
12x18x8	72.50	89.50	115	18x30x6	115.00	144.00	182				
12x18x12	82.00	100.00	130	18x30x8	125.00	155.00	198				
				18x30x12	156.00	190.00	243				
12x24x6	66.80	82.50	106								
12x24x8	75.60	93.50	120	18x36x8	146.00	180.00	231				
12x24x12	97.50	121.00	155	18x36x12	176.50	220.00	280				
				18x60x12	270.00	335.00	430				

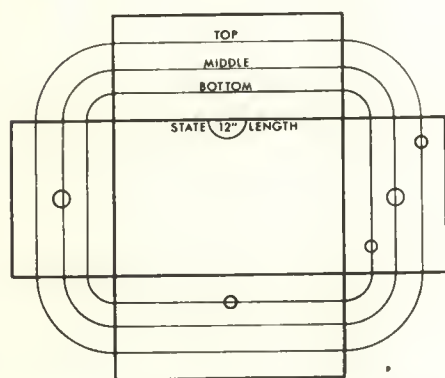
Boxes can be furnished with Hinged or Traffic Strength Recessed Diamond Tread Covers. Mounting lugs can be furnished as required. Prices for above extras quoted on application.

## ELECTRICAL PULL-IN OR JUNCTION BOXES

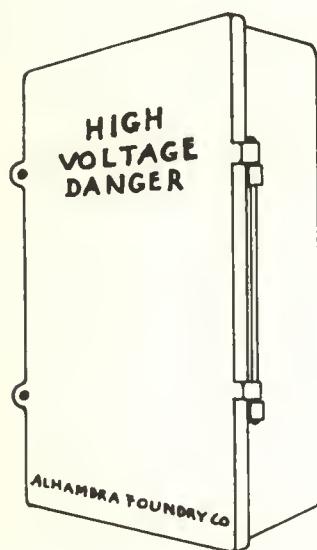
APPROVED BY UNDERWRITERS LABORATORIES



A-1677



GIVE SIZE & ACCURATE LOCATION  
OF OUTLETS. A SKETCH SIMILAR TO  
ABOVE SHOULD ACCOMPANY YOUR  
ORDER.



A-1650

## Recessed Traffic Cover Watertight Pull Boxes

PLATE A1677

WIDTH	LENGTH	DEPTH	WEIGHT	BLACK	GALVANIZED
4	4	4	11	8.00	10.00
4	6	4	15	11.00	13.50
4	8	4	18	13.10	16.20
6	6	4	18½	13.50	16.65
6	6	6	23	16.70	20.75
6	8	4	22	16.00	19.80
6	8	6	28	20.40	25.20
6	12	6	42	30.00	37.80
8	8	6	32	23.20	28.80
8	8	8	39	29.20	35.00
8	10	6	39	30.00	36.00
8	12	6	65	47.00	58.50
8	14	7	76	55.00	68.50
8	18	6	86	62.50	77.50
9	12	6	74	53.50	66.50
10	10	6	52	37.80	46.75
12	12	6	76	55.00	68.50
12	12	8	86	62.50	77.50
12	14	6	84	61.00	75.50
12	16	4	90	65.20	81.00
12	16	8	115	83.50	104.00
12	18	8	130	94.50	117.00
12	24	8	140	100.00	126.00

## Pole-type Hinged Cutout Boxes

SERIES A1650

PLATE NUMBER	WIDTH	INSIDE MEASUREMENTS LENGTH	DEPTH	APPROXIMATE WEIGHT	LIST PRICE
A-1650	12	24	6	120	\$85.00
A-1651	8-5/8	30	6½	90	80.00

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

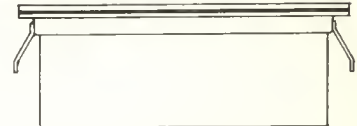
## ELECTRICAL PULL BOXES FOR HIGHWAY BRIDGES AND SUBWAYS

## Electrical Pull Box for Highway Bridges

Conforms to Type "B" California Highway Bridge Details. Box, Steel, Fabricated – Cover of Cast Iron – Brass Screws and Cover Galvanized after Fabrication.

PLATE NUMBER	INSIDE DIMENSIONS			OVERALL DIMENSIONS			APPROXIMATE WEIGHT
	WIDTH	LENGTH	DEPTH	WIDTH	LENGTH	DEPTH	
A-1660	12	24	10	15	27	10 $\frac{3}{4}$	120
A-1660 – List Price \$61.50							

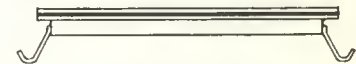
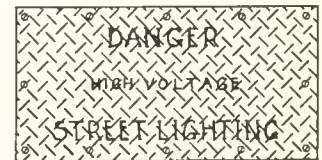
Special sizes made to order.



A-1660

## Electrical Bridge Pull Box Frame and Covers for Lighting and Signal Circuits

PLATE NUMBER	TYPE COVER	INSIDE DIMENSIONS			OVERALL DIMENSIONS			APPROX. WEIGHT
		WIDTH	LENGTH	DEPTH	WIDTH	LENGTH	DEPTH	
A-1661	Fab. Steel	12	24	1 $\frac{1}{2}$	15	27	1-7/8	58
A-1662	Cast Iron	12	24	1 $\frac{1}{2}$	15	27	2-5/8	75
A-1663	Cast Steel	12	24	1 $\frac{1}{2}$	15	27	1-7/8	70
A-1661	47.00	SPECIAL SIZES MADE TO ORDER Marking as Required						
A-1662	30.00							
A-1663	36.00							



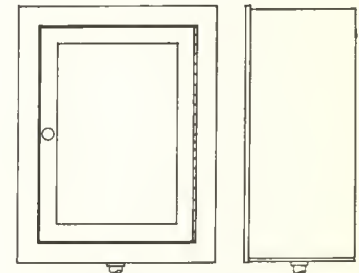
A-1661

## Switch Box for Pedestrian Subways

Conforms to City of Los Angeles Standard B-1984 Cast Iron Door and Casing with 1/8 inch Galvanized Steel Panel – Piano Hinge – Fitted to Receive No. 511-S-7/8 inch Barrel Yale Cylinder Lock (Not Furnished).

PLATE NUMBER	INSIDE DIMENSIONS			OVERALL DIMENSIONS			APPROX. WEIGHT	LIST PRICE
	WIDTH	LENGTH	DEPTH	WIDTH	LENGTH	DEPTH		
A-1664	15 $\frac{1}{4}$	22	9-5/8	18-7/8	24-3/4	10-1/4	175	\$171.00

All Parts Galvanized- $\frac{3}{4}$ " I.P.T. Drain Outlet.



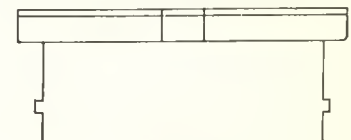
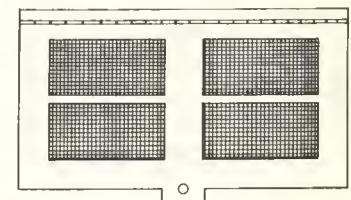
A-1664

## AFCO Light Box and Door for Pedestrian Subways

Galvanized Cast Iron Box with Hinged Cover of No. 16 GA. Galvanized Woven Screen – With No. R381 $\frac{1}{2}$  Yale Locker Lock with No. A19XXX3 Master Keys. Conforms to City of Los Angeles D4715.

PLATE NUMBER	INSIDE DIMENSIONS			OVERALL DIMENSIONS			APPROX. WEIGHT	LIST PRICE
	WIDTH	LENGTH	DEPTH	WIDTH	LENGTH	DEPTH		
A-1665	5-1/4	13-1/4	6	10-5/16	16-1/4	16-3/4	58	\$75.50

Also Furnished in Cast Aluminum.



A-1665



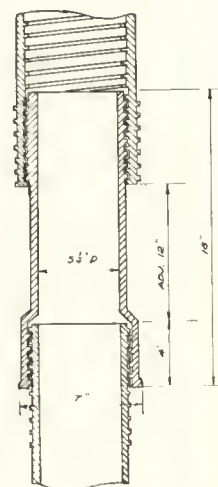
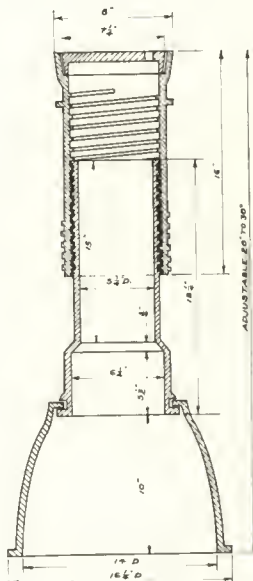
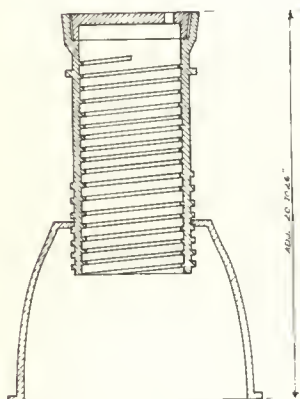
## CAST IRON VALVE EXTENSION BOXES

STATE VALVE SIZE AND DEPTH OF TRENCH WHEN ORDERING  
COVERS WILL BE FURNISHED DESIGNATING "WATER" UNLESS OTHERWISE STATED

A3000—5 $\frac{1}{4}$ "—Diameter Shaft, Screw Adjustment

## A-3000

Depth Trench	30	36	42	48	54	60
List Prices	\$21.70	\$21.70	\$27.80	\$27.80	\$33.00	\$33.00



## Parts Required

VALVE SIZE	BOTTOM OF BASE TO BOTTOM OF TRENCH	DEPTH OF BOX	PARTS REQUIRED	LIST PRICE
UP TO 36" DEPTH OF TRENCH				
3	10	26	1-2-4	\$21.70
4	12	24	1-2-4	21.70
6	15	21	1-2-4	21.70
UP TO 48" DEPTH OF TRENCH				
4	12	36	1-2-3-4	\$27.80
6	15	33	1-2-3-4	27.80
8	20	28	1-2-3-4	27.80
12	29	19	1-2-4	21.70
UP TO 60" DEPTH OF TRENCH				
4	12	48	1-2-3-4-5	\$33.00
6	15	45	1-2-3-4-5	33.00
8	20	40	1-2-3-4	27.80
12	29	31	1-2-3-4	27.80
16	40	20	1-2-4	21.80

## Price List

PART NUMBER	WEIGHT	LIST
No. 1 - Cover	12	\$ 2.70
No. 2 - Top Section	34	7.75
No. 3 - Center Section	27	6.10
No. 4 - Bell	40	11.25
No. 5 - Extension	23	5.20

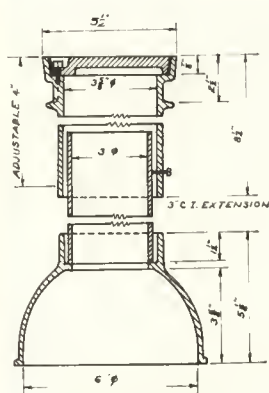
For Up To 18" Valves.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

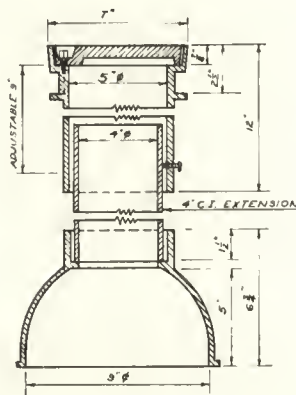
## CAST IRON VALVE EXTENSION BOXES

STATE VALVE SIZE AND DEPTH OF TRENCH WHEN ORDERING

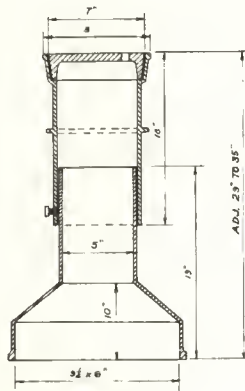
COVERS WILL BE FURNISHED DESIGNATING "WATER" UNLESS OTHERWISE STATED



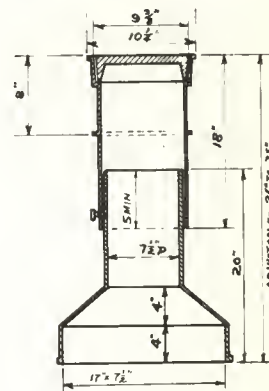
A-3003



A-3004



A-3005



A-3007

SLIP ADJUSTMENT TYPE WITH SET SCREW LOCK

A-3003 - For up to 3" Valves

Trench Depth Up to	36"	48"	60"
List Prices	\$10.00	\$12.00	\$14.00

A-3004 - For up to 6" Valves

Trench Depth Up to	36"	48"	60"
List Prices	\$11.75	\$13.75	\$15.75

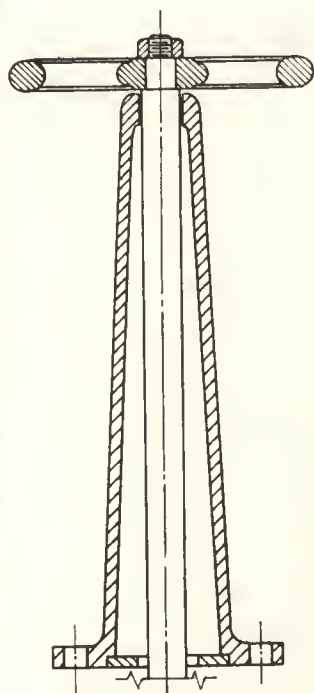
SLIP ADJUSTMENT TYPE WITH LOOSE COVER

A-3005 - For up to 16" Valves

Trench Depth Up to	35"	60"
List Prices	\$21.00	\$32.00

A-3007 - For up to 24" Valves

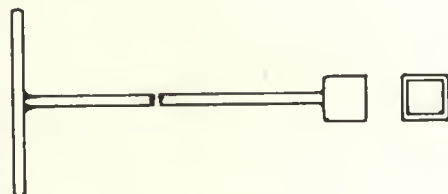
Trench Depth Up to	36"	60"
List Prices	\$27.00	\$41.00



A-3006

**Boxes with Operating Stem Extension**  
FOR BRINGING OPERATING NUT WITHIN 8" OF GROUND  
PRICES AND DETAILS ON APPLICATION

**A3006—Valve Floor Stands**  
PLAIN OR WITH INDICATOR  
EXTENSION STEMS AND FITTINGS FOR SPECIAL  
VALVE OPERATING CONDITIONS

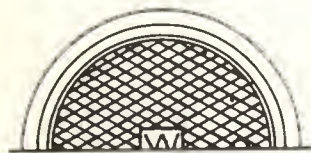


A-3008

**A3008—Extension Operating Handle**  
5 FEET LONG FOR 2 INCH  
SQUARE OPERATING NUT

List Price.....\$6.25

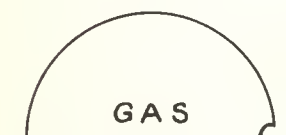
## VALVE BOX CAPS



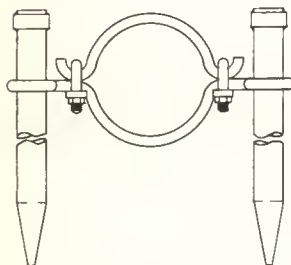
A-2980



A-29600



A-29500



A-4022

Valve Box Frame with Separate Covers  
HEAVY DUTY

PLATE NUMBER	EXTENSION SIZE	APPROXIMATE WEIGHT	LIST PRICE	PLATE NUMBER	EXTENSION SIZE	APPROXIMATE WEIGHT	LIST PRICE
A-2984	4	10	\$5.30	A-2988	8	24	\$12.50
A-2986	6	15	7.20	A-2989	12	45	24.00

Nominal size is size of pipe used as an extension. Cover designated "Water" or "Gas" to suit.

Valve Box Caps—Street Type  
HEAVY DUTY—LONG BODY

PLATE NUMBER	EXTENSION SIZE	APPROXIMATE WEIGHT	LIST PRICE	PLATE NUMBER	EXTENSION SIZE	APPROXIMATE WEIGHT	LIST PRICE
A-29602	2	2	\$1.60	A-29607	7	26	\$4.80
A-29603	3	8	2.30	A-29608	8	28	5.20
A-29604	4	12	2.70	A-29610	10	48	8.90
A-29605	5	18	4.00	A-29612	12	65	13.25
A-29606	6	24	4.45				

Nominal size is size of pipe used as an extension. Cover designated "Water" or "Gas" to suit.

Valve Box Caps—Parkway Type  
SHORT BODY

PLATE NUMBER	EXTENSION SIZE	APPROXIMATE WEIGHT	LIST PRICE	PLATE NUMBER	EXTENSION SIZE	APPROXIMATE WEIGHT	LIST PRICE
A-29502	2	2	\$1.30	A-29507	7	23	\$3.60
A-29503	3	7	1.75	A-29508	8	24	4.00
A-29504	4	10	2.20	A-29510	10	40	6.50
A-29505	5	14	3.00	A-29512	12	54	9.85
A-29506	6	20	3.20				

Nominal size is size of pipe used as an extension. Cover designated "Water" or "Gas" to suit.

## Down Drain Pipe Anchors

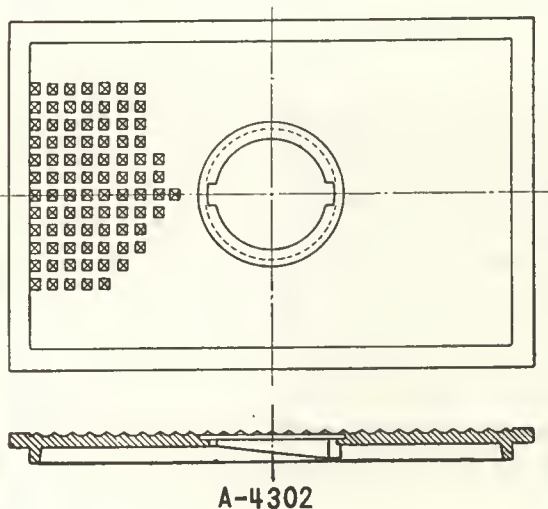
$\frac{3}{4}$ " ROUND STEEL YOKES FOR  
ANCHORING CORRUGATED CULVERT PIPE

PLATE NUMBER	APPROXIMATE WEIGHT	LIST PRICE
A-4022	70	\$26.00

State of California Specification

2 Inch Pipe Stakes, Eight Feet Long For Driving  
in Soil. State Size of Culvert.

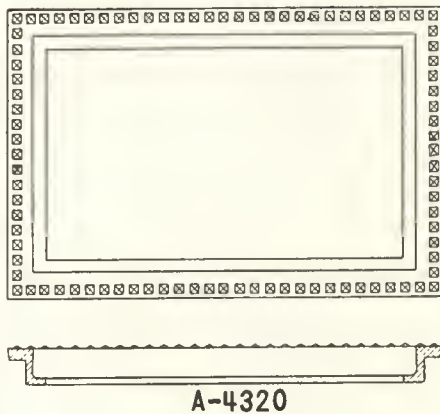




## CAST IRON METER COVERS AND FRAMES Series A4300

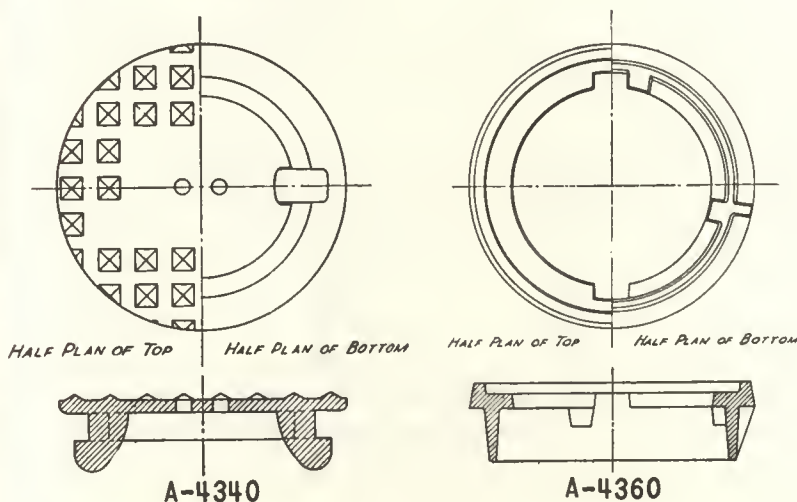
PLATE NUMBER	LENGTH	WIDTH	DIAMETER OPENING	SKIRT	APPROX. WEIGHT	LIST PRICE
A-4301	9	9	5	1-3/8	15	\$ 4.00
A-4302	12	12	5	1-1/2	27	7.00
A-4303	20	12	5	7/8	42	10.30
A-4304	24	16	5	1	68	13.80
A-4305	30	22	7 1/4	7/8	140	34.00

Locking Type Lid.



## Bureau of Water and Power Standards for Concrete Meter Covers

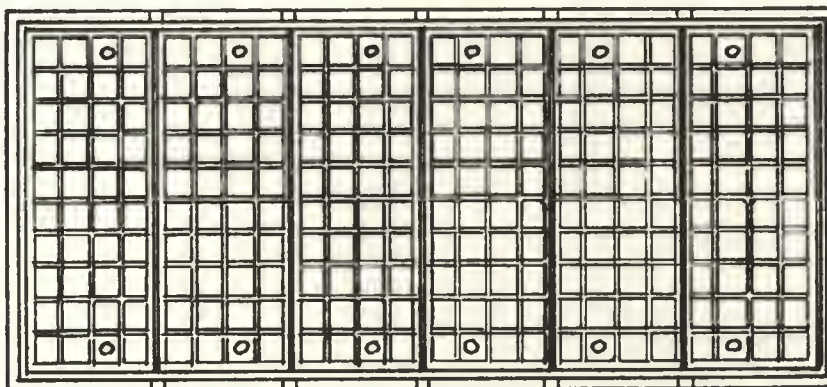
PLATE NUMBER	BUREAU NUMBER	LIST PRICE
A-4340	897MS	\$ .60
A-4360	930MS	.60
A-4360	889MS	.60
A-4360	896MS	.70
A-4320	894MS	6.70
A-4320	895MS	9.70
A-4320	917MS	36.00
A-4320	920MS	48.00



ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## HEAVY-DUTY CULVERT FRAMES WITH SECTIONAL COVERS

STATE AND LOS ANGELES COUNTY TYPES



## THREE COVER SECTIONS

PLATE NUMBER	CLEAR OPENING	OVERALL FRAME	HEIGHT	APPROXIMATE WEIGHT	LIST PRICES	
					IRON COVERS	STEEL COVERS
A-1350	48x38-3/8	57 x45	4-5/8	1540	\$460.00	\$515.00
A-1351	42x38-3/8	51½x45	3-3/4	1310	430.00	480.00
A-1352	36x38-3/8	45½x45	3-3/4	1170	400.00	445.00
A-1353	30x38-3/8	39 x45	3-1/2	1024	370.00	412.00
A-1354	24x38-3/8	36¾x45	3-1/2	875	330.00	376.00

## SIX COVER SECTIONS

PLATE NUMBER	CLEAR OPENING	OVERALL FRAME	HEIGHT	APPROXIMATE WEIGHT	LIST PRICES	
					IRON COVERS	STEEL COVERS
A-1356	48x79	57 x85½	5	2550	\$730.00	\$810.00
A-1357	42x79	51½x85½	4-1/2	2100	665.00	742.00
A-1358	36x79	45½x85½	4	1825	600.00	672.00
A-1359	30x79	39 x84½	3-1/2	1425	595.00	660.00

## SINGLE COVER SECTIONS ONLY

PLATE NUMBER	SIZE OVERALL	HEIGHT AT FRAME	APPROXIMATE WEIGHT	LIST PRICES	
				CAST IRON	CAST STEEL
A-1356C	13-3/8x52-3/4	2-3/8	310	\$135.00	\$150.00
A-1357C	13-3/8x46-1/2	2-1/2	250	123.00	137.00
A-1358C	13-3/8x40-1/2	2-1/2	210	100.00	123.00
A-1359C	13-3/8x34-1/2	2-1/2	170	98.00	110.00

By combining in use the above covers with an angle steel frame a wide variety of sizes can readily be furnished. Raised Lattice Tread. Covers carefully fitted to the frame and match-marked. Covers are regularly furnished in Cast Steel. Cast Iron Covers furnished on specification.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

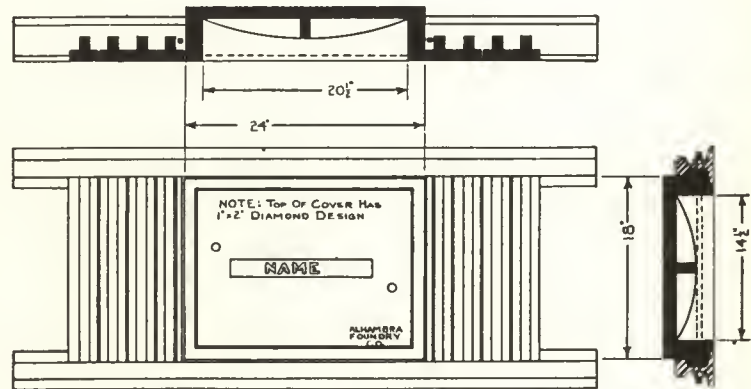
## CULVERT COVERS AND FRAMES

### Culvert Manhole Covers and Frames HEAVY DUTY

PLATE NUMBER	APPROXIMATE WEIGHT	LIST PRICES	
		BLACK	GALVANIZED
A-1550	500	\$71.50	\$126.00
Frame and Cover only		56.50	74.00
Each Additional 6" Span		8.25	12.65

60 Pound Rail Supports.

Conforms to City of Los Angeles B2522.



A-1550

### Extra Heavy Manhole Covers and Frames

PLATE NUMBER	NUMBER COVERS	CLEAR OPENING	SIZE OVERALL	LIST PRICE
A-1840	4	32x74	76 1/2 x 72	\$620.00
A-1841	1	16x29 1/2	28 1/2 x 55	135.00
A-1842	Cover Only		18 1/4 x 31 1/4	50.00

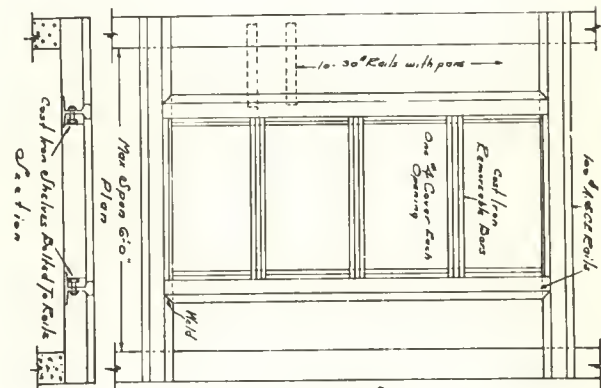
A-1840 Conforms to L.A. County Road Dept. No. 4 w/#4 Frame.

A-1841 Conforms to L.A. County Road Dept. No. 4 w/#3 Frame.

Width of Box Variable from 2'6" to 6'0". Frame constructed of 100 pound Rails with 30 pound Rails with Metal Concrete Pans Furnished where Width of Box is over 4'0" for Side Supports.

Due to the Number of Variables involved, Prices and Drawings should be obtained from our Office.

Approximate weight - A-1840 - 1600#



A-1840

### Extra Heavy Sectional Manhole Covers and Frames

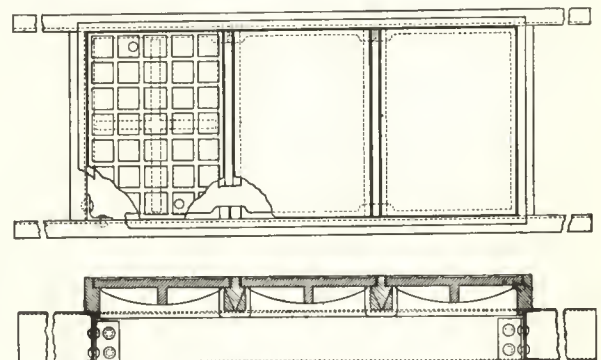
PLATE NUMBER	NUMBER COVERS	CLEAR OPENING	OVERALL OUTSIDE "A"	HEIGHT OVERALL "B"	APPROX. WEIGHT	LIST PRICE
A-4120	8	22x135	24x137	10	3000	\$620.00
A-4121	7	22x118	24x120	10	2625	530.00
A-4122	6	22x101	24x103	10	2235	460.00
A-4123	5	22x84	24x86	10	1925	400.00
A-4124	4	22x67	24x69	10	1550	330.00
A-4125	3	22x50	24x52	10	1125	270.00
A-4126	2	22x33	24x35	10	905	210.00
A-4127	1	22x16	24x18	10	440	150.00

(A) Does NOT include the Extensions of the Channels.

(B) Includes Cast Iron Frame and Steel Channels.

Apply to Office for Prices and Drawings to meet varying conditions.

City of Los Angeles for use on Outfall Sewer Lines.



A-4120

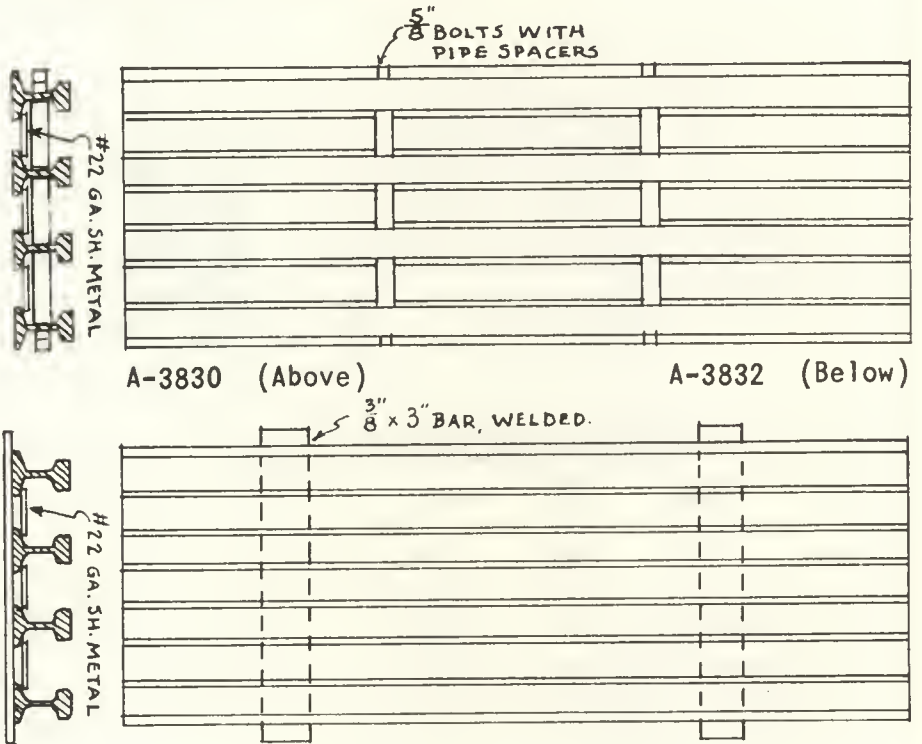


## RAIL REINFORCING FOR STREET CULVERTS AND CATTLE GUARDS

### SPACING RECOMMENDATIONS, USING 30-POUND RAIL

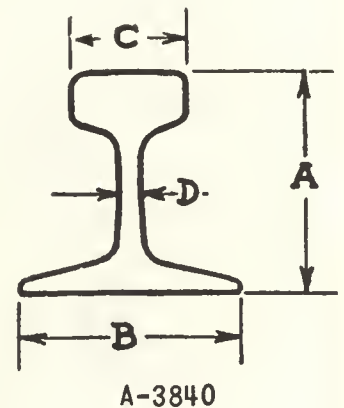
OPENING	SPACING C. C.	LENGTH
2'6"	7½"	3'2"
3'0"	6½"	3'8"
3'6"	5½"	4'2"
4'0"	5"	4'8"
4'6"	4½"	5'2"
5'0"	4"	5'8"
5'6"	4¾"	6'2"
6'0"	3½"	6'8"

Prices on Application.



### Weights and Dimensions of A.S.C.E. Rail

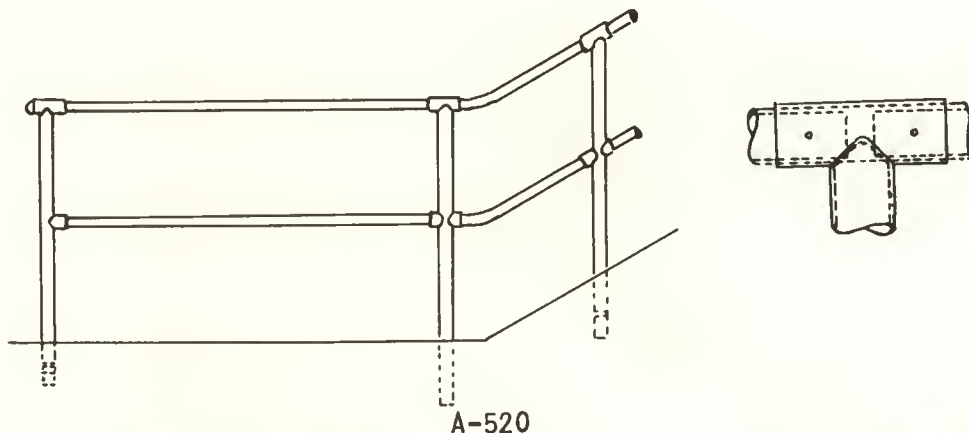
WEIGHT PER YARD	"A"	"B"	"C"	"D"
100	5-3/4	5-3/4	2-3/4	9/16
90	5-3/8	5-3/8	2-5/8	9/16
85	5-3/16	5-3/16	2-9/16	9/16
80	5	5	2-1/2	35/64
75	4-13/16	4-13/16	2-13/32	17/32
70	4-5/8	4-5/8	2-7/16	31/64
76	4-7/16	4-7/16	2-13/32	1/2
60	4-1/4	4-1/4	2-3/8	31/64
55	4-1/16	4-1/16	2-1/4	15/32
50	3-7/8	3-7/8	2-1/8	7/16
45	3-11/16	3-11/16	2	27/64
40	3-1/2	3-1/2	1-7/8	25/64
35	3-5/16	3-5/16	1-3/4	23/64
30	3-1/8	3-1/8	1-11/16	21/64
25	2-3/4	2-3/4	1-1/2	19/64
20	2-5/8	2-5/8	1-11/32	1/4
16	2-1/16	2-1/16	1-1/16	7/32
14	2-1/16	2-1/16	1-1/16	1/4
12	2	2	1	3/16
10	1-3/4	1-3/4	16/16	3/16
8	1-9/16	1-9/16	13/16	5/32



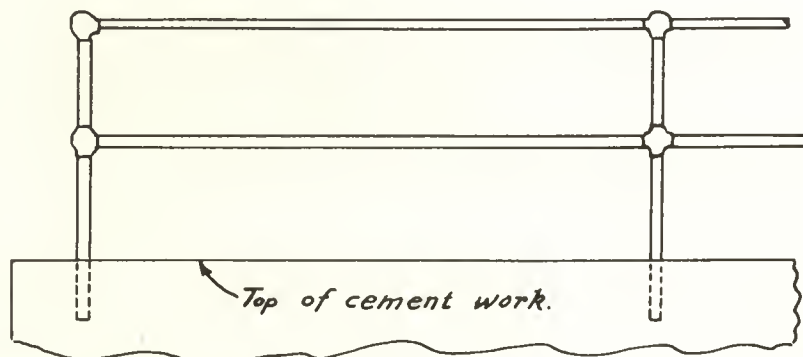
A-3840

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## PIPE RAILING

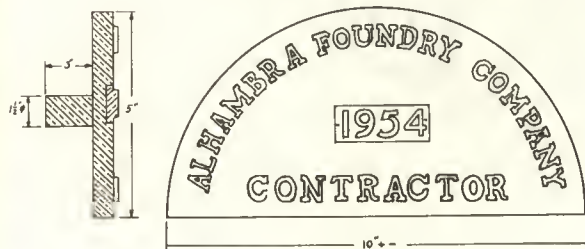


1½" GALVANIZED PIPE CONFORMS TO CITY OF LOS ANGELES DWG. NO. B-3499



PIPE RAILING WITH BALL PATTERN FITTINGS. MADE AND ERECTED TO SPECIFICATION

## Bronze Date Stamps



A-500

STANDARD CONTRACTORS DATE STAMP

LETTERED AS REQUIRED

Plate No. A-500

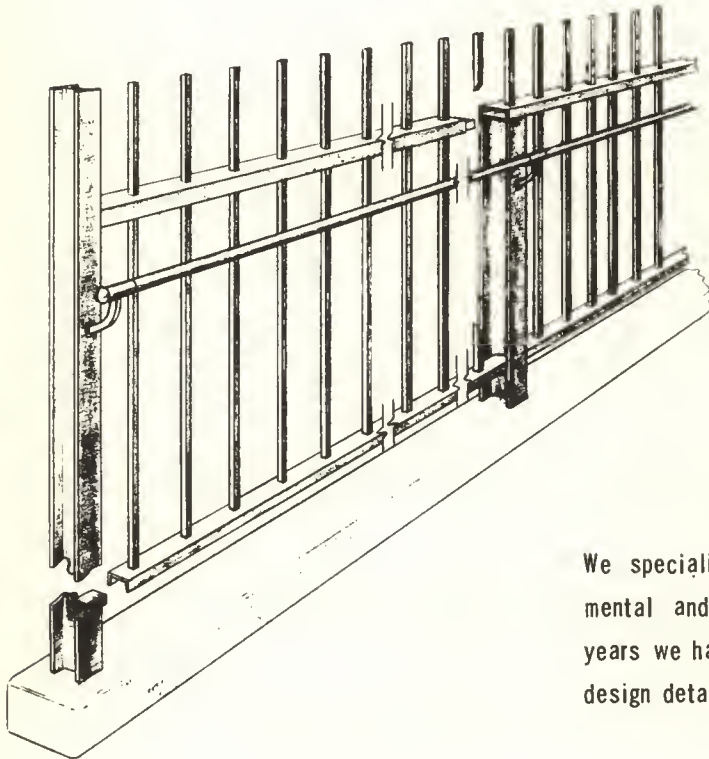
Price \$30.00



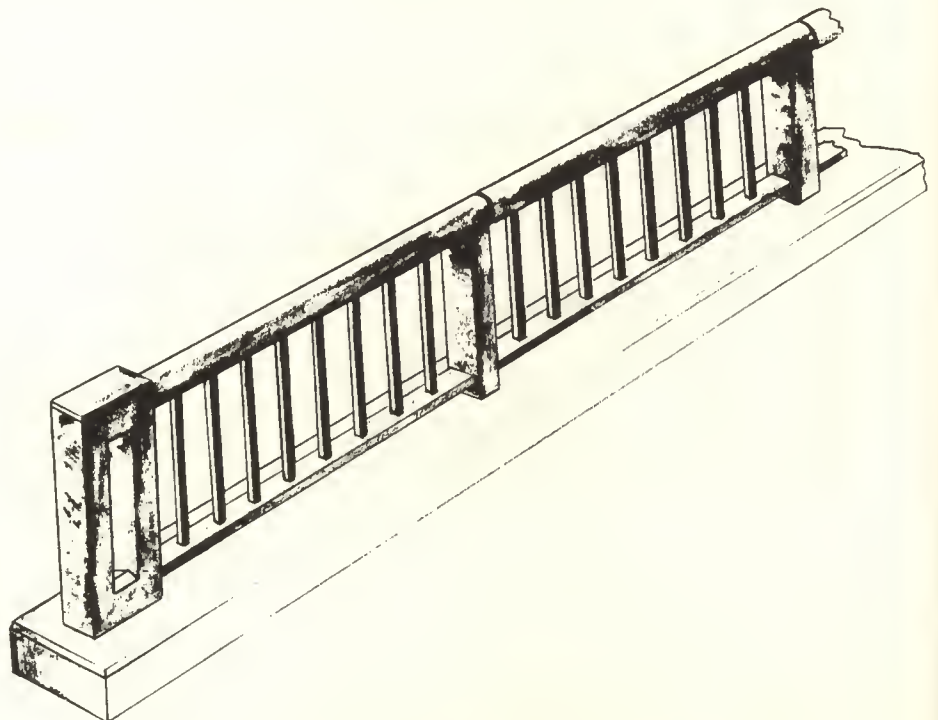
A-501

PLATE NUMBER	HEIGHT LETTER	LETTER THICKNESS	PRICE EACH LETTER
A-501	4½"	¼"	\$5.90
Letters Polished and Drilled for Mounting on Plywood Board.			

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

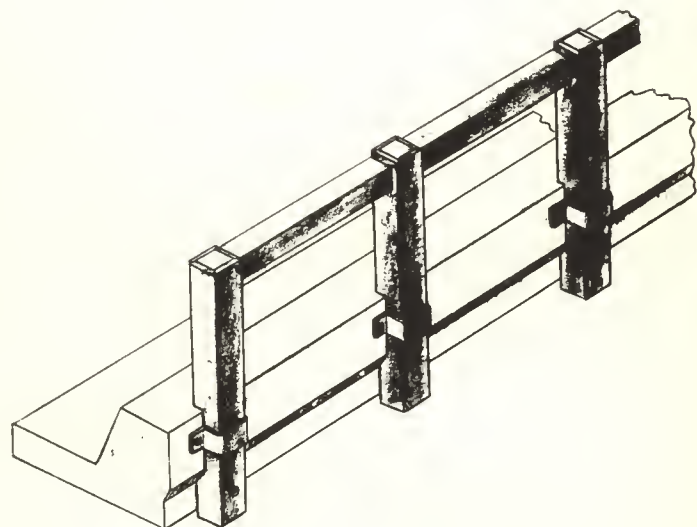
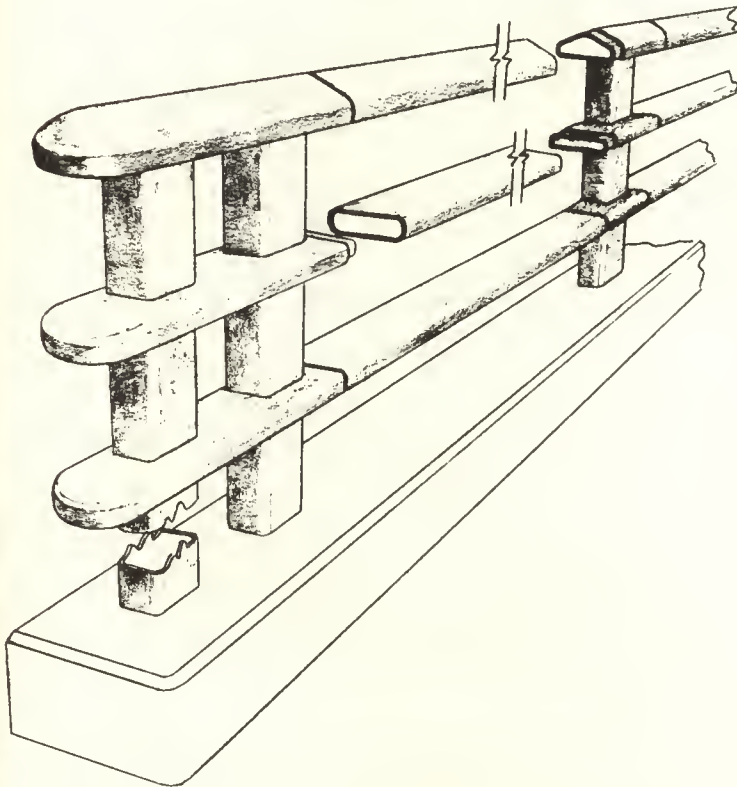
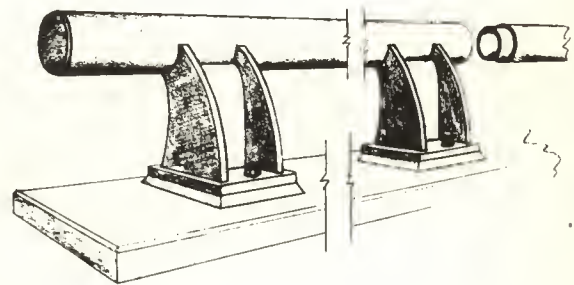


We specialize in the fabrication and erection of all types of ornamental and safety railings, particularly bridge railings. For many years we have worked with engineering offices throughout the State on design details. We solicit inquiries on any problem.

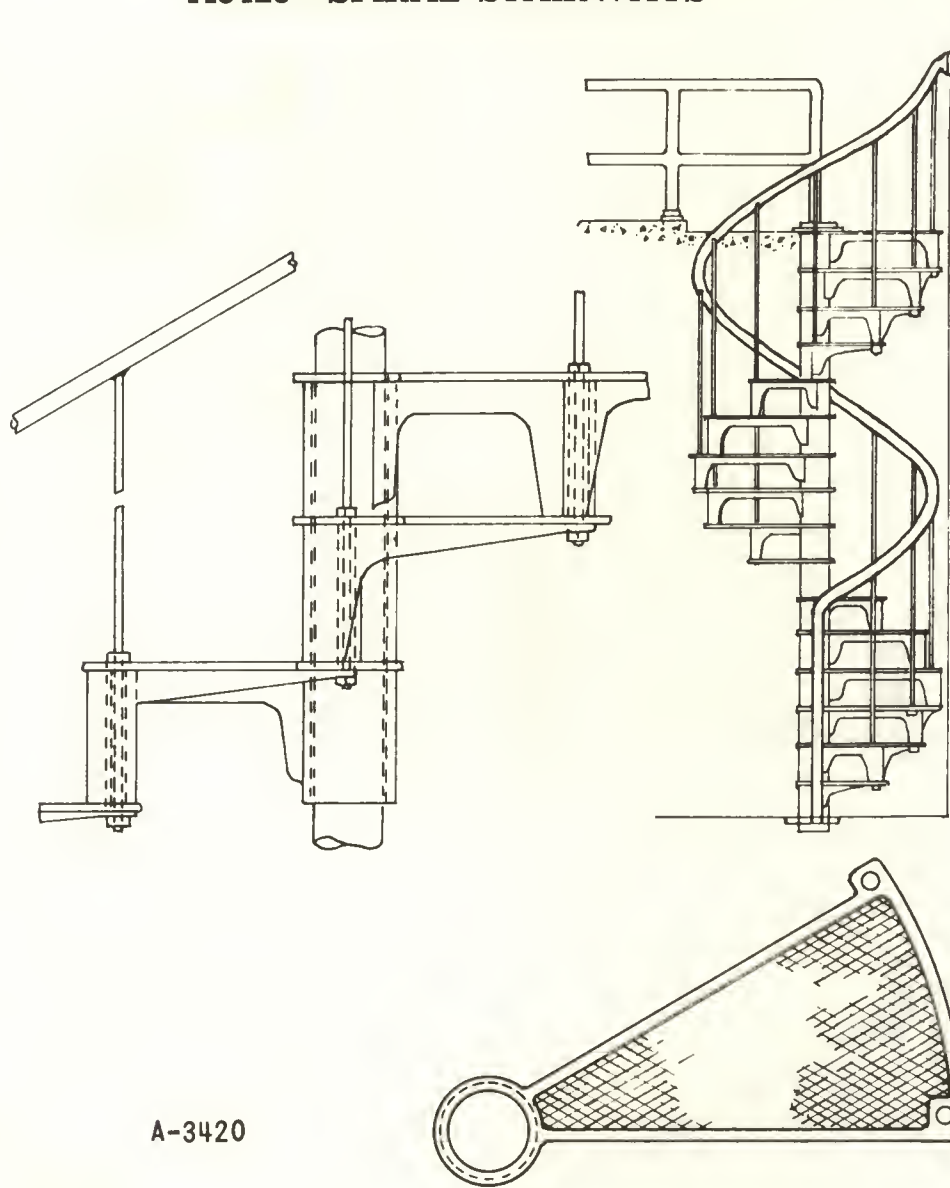


ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## A3420—SPIRAL STAIRWAYS



A-3420

Spiral Stairways for all Purposes; Designed, Manufactured and Installed. Forty-eight, Fifty-four and Sixty Inch Diameters.

Cast Iron Steps with Raised Diamond Tread Ascending from Right or Left Hand. Steps may be Carborundum Filled or Recessed for Linoleum. Finish: Painted or Galvanized. Detail Drawings on Application.

## A3420 SPIRAL STAIRWAYS

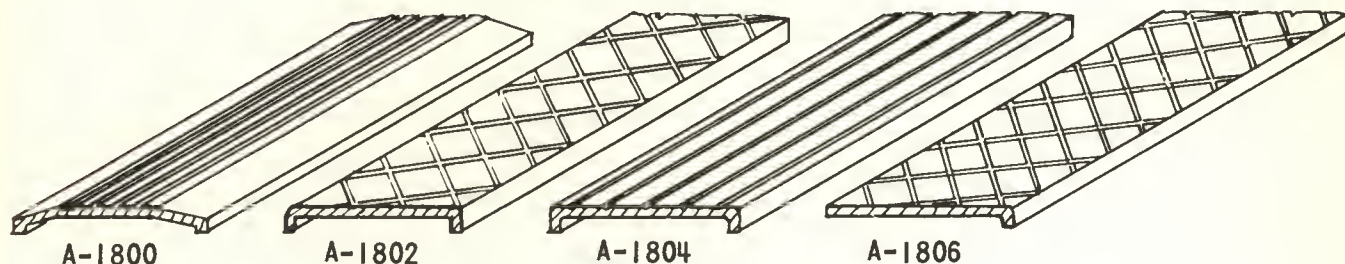
LIST PRICES—PAINTED (PER FOOT OF RAISE)	48"	54"	60"
Fabricated Only	\$54.00	\$60.00	\$66.00
Fabricated and Erected	65.00	75.00	82.50

Landing Platforms Made to Details.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## BRASS OR IRON THRESHOLDS AND STAIR NOSING

WITH ABRASIVE TREAD OR PLAIN



PATTERNS A1800 TO A1806		LIST PRICES	
3½" or 4" Wide, per foot	Cast Iron	\$2.50	Brass \$7.50
5" or 6" Wide, per foot	Cast Iron	3.00	Brass 8.00
Special Drilling or Cutting-Extra			
Abrasive Tread, Per Foot, Add		.85	.85

Regularly Supplied with Wing Nuts and Countersunk Machine Screws, Staggered at not more than 12" Centers.

### Corner Wheel Bumper

PLATE NUMBER	DIAMETER BASE	HEIGHT OVERALL	APPROXIMATE WEIGHT	LIST PRICE
A-1980	12	22½	75	\$18.50

Other Heights Made to Order.

### Corner Wheel Bumper with Angle Corner Guard

PLATE NUMBER	DIAMETER BASE	HEIGHT OVERALL	APPROXIMATE WEIGHT	LIST PRICE
A-1982	12	60	110	\$30.00

### Doorway Wheel Guard

HEAVY DUTY

PLATE NUMBER	WIDTH	HEIGHT OVERALL	METAL THICKNESS	APPROXIMATE WEIGHT	LIST PRICE
A-1985	2'10"	27"	¾	380	\$95.00

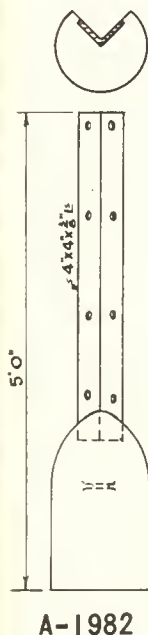
Top Flange Drilled for Anchor Bolts.  
Patterns adaptable as to Height and Width.

### Heavy Duty Corner Wheel Guard

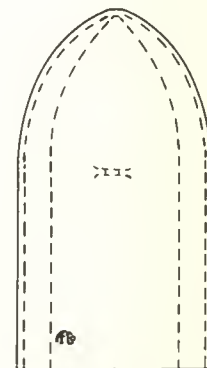
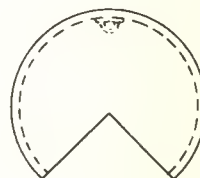
PLATE NUMBER	WIDTH	HEIGHT OVERALL	METAL THICKNESS	APPROXIMATE WEIGHT	LIST PRICE
A-1986	13"	27	¾	160	\$50.00

Top Flange Drilled for Anchor Bolts

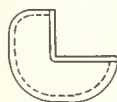
Made for Right or Left Hand.



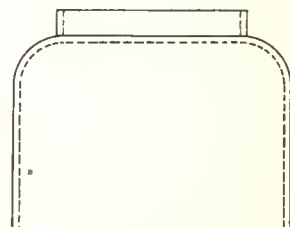
A-1982



A-1980



A-1986



A-1985



## MISCELLANEOUS CAST IRON WASHERS AND SPACERS

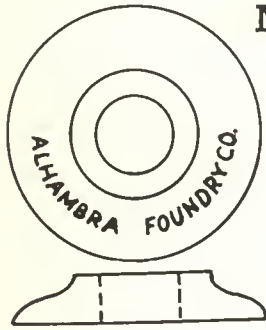
Black or Galvanized. Special Washers of every description.  
Weights given are for estimating purposes only.

### Standard O. G. Washers

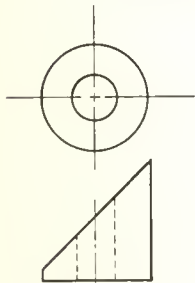
BOLT SIZE	DIAMETER	PLATE THICKNESS	* WEIGHT PER 100 PCS.	LIST PRICE PER 100 LBS.
1/2	2-3/8	9/16	38	\$20.00
5/8	3	5/8	75	16.00
3/4	3-1/4	11/16	100	12.00
7/8	3-1/2	13/16	150	12.00
1	4	7/8	200	12.00
1-1/8	4-1/2	15/16	250	12.00
1-1/4	4-1/2	1	250	12.00
1-3/8	5-3/4	1-1/8	560	12.00
1-1/2	6	1-1/4	650	12.00
1-3/4	7	1-3/8	750	12.00
2	8	1-1/2	800	12.00

### Bevel or Angle Washers

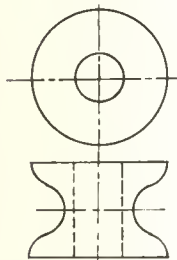
A-3540-45*	A-3550-60*	A-3580-22½*	A-3570-20*
BOLT SIZE	DIAMETER	* WEIGHT PER 100 PCS.	LIST PRICE PER 100 LBS.
1/2	2-7/8	50	\$25.00
5/8	3	125	25.00
3/4	3-1/8	125	25.00
7/8	3-5/8	200	20.00
1	4	200	20.00
1-1/8	4-3/4	250	20.00
1-1/4	5-1/4	350	20.00
1-1/2	6	500	20.00
1-3/4	7	800	20.00
2	8	900	20.00



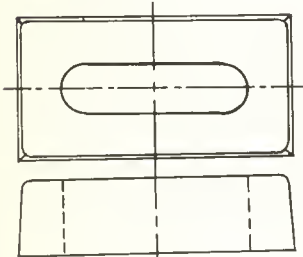
A-3510



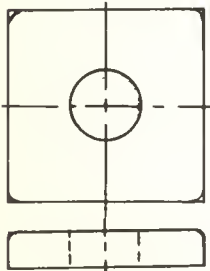
A-3540



A-3600



A-3610



A-3640

### A3610—Cast Iron Spacers

FOR VARIOUS BOLT SIZES AND THICKNESS

### A3640—Cut Steel Washers

MADE ANY SIZE AND THICKNESS

### Miscellaneous Washers and Spacers

WE HAVE PATTERNS FOR MANY SIZES AND DESIGNS

\*Invoices will be charged at scale weights.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## Tubular Steel Light Standard

AN ECONOMICAL LIGHT STANDARD FOR EXTERIOR AREA LIGHTING  
MAY BE INCORPORATED AS A POST IN PIPE HAND RAILING

PLATE NUMBER	FINISH	LIST PRICE
A-4430	Painted	\$46.50
	Galvanized	60.00

Prices do not include Column Lite.

## Cast Iron Balustrade Light Standard

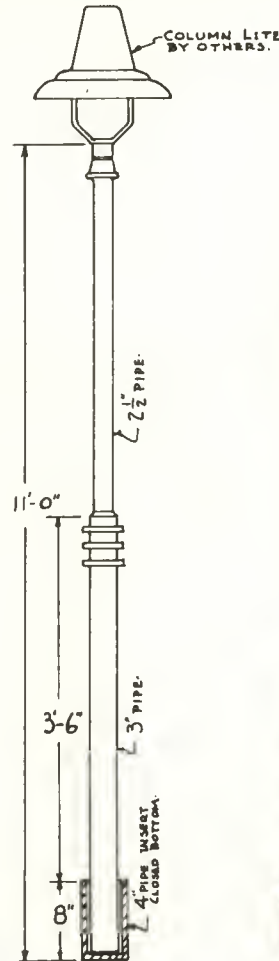
PLATE NUMBER	HEIGHT LESS LIGHT	SIZE BASE	LIST PRICE
A-4420	48	14x14	On Application

Also used for Driveways, Gardens Etc., Drawings  
Furnished on Application.

## Cast Iron Street Lighting Standard

PLATE NUMBER	HEIGHT LESS LIGHT	DIAMETER BASE	LIST PRICE
A-4410	16' 8"	15	On Application

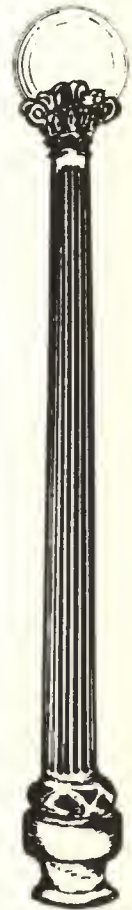
Also Furnished with Single or Double Light Arm Drawings  
Furnished on Application.



A-4430



A-4420

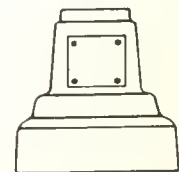


A-4410

## Cast Iron Traffic Signal Bases

THREADED FOR 4 INCH STEEL PIPE STANDARD

PLATE NUMBER	HEIGHT	SIZE BASE	BOLT CIRCLE	NUMBER HOLES	SIZE HOLES	LIST PRICE
A-4445	16	17	12	6	1	\$30.00

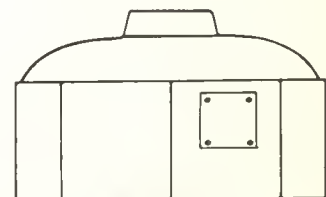


A-4440

## Cast Iron Lighting Standard Bases

THREADED FOR 4-5 OR 6" STEEL PIPE

PLATE NUMBER	HEIGHT	DIAMETER BASE	BOLT CIRCLE	NUMBER HOLES	SIZE HOLES	LIST PRICE
A-4440	14	14	10	4	1	\$24.00



A-4445

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## INCINERATOR DOORS AND FRAMES

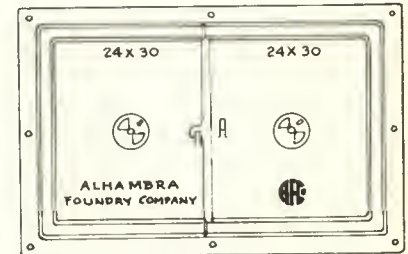
### Cast Iron Double Swing Charging Doors

NOMINAL SIZES GIVEN ARE OVER THE SKIRT

SKIRTS ARE 4 INCHES DEEP ON ALL SIZES

LIST PRICES INCLUDE DRAFT REGULATORS

PLATE NUMBER	HEIGHT SKIRT	WIDTH SKIRT	LIST PRICE	ADD FOR BAFFLES
A-2511	12	24	\$18.00	
A-2512	18	24	26.00	\$ 7.00
A-2513	24	30	61.00	8.00
A-2514	24	36	75.00	8.50
A-2515	28	36	85.00	9.00
A-2516	36	36	120.00	12.50



A-2510

### C. I. Incinerator Doors and Frames

SIZES GIVEN ARE OUTSIDE DIMENSIONS OF SKIRT

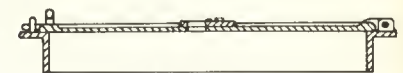
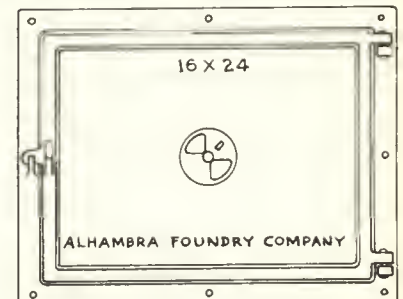
DEPTH OF SKIRT IS 4 INCHES

SINGLE DOOR

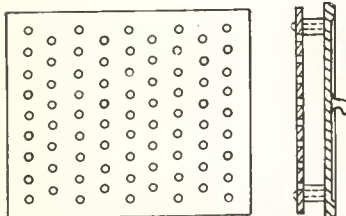
SKIRT SIZE	LIST PRICE	AD FOR BAFFLES	SKIRT SIZE	LIST PRICE	AD FOR BAFFLES
9x9	\$ 2.00	—	16x16	\$12.00	\$5.00
8x10	2.30	—	16x18	14.00	5.40
10x12	5.00	—	*16x24	17.00	5.50
12x12	5.00	—	*18x18	17.00	5.50
12x14	6.00	\$2.40	18x20	17.00	5.50
10x16	8.00	2.40	18x24	20.00	6.00
12x16	8.50	2.50	18x31	24.00	6.50
12x18	10.00	4.00	20x20	23.00	6.50
14x16	10.00	4.00	20x24	26.00	7.50
14x18	11.00	4.00	24x24	32.00	7.50

\*18x18 Extra Heavy with Baffles and Regulator - \$35.00.

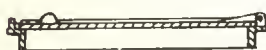
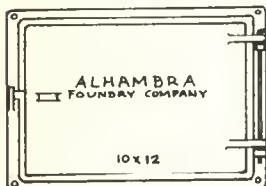
16x24 with 2 Inch Deep Skirt List Price - \$15.00.



A-2500



C. I. BAFFLE PLATE



A-2520

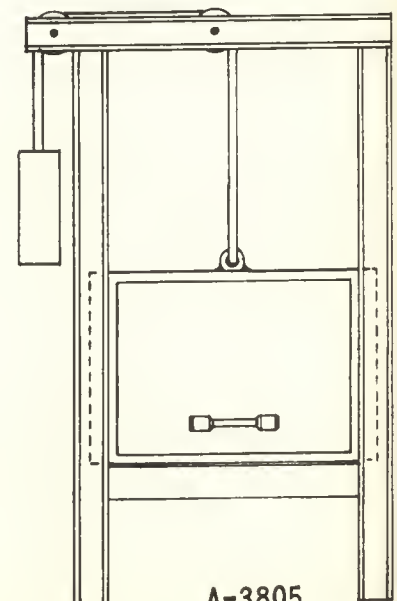
### Guillotine Door and Frame WITH COUNTERWEIGHT AND CABLE

A3805

FOR LARGE FURNACE OPENINGS  
PRICES AND DRAWINGS ON APPLICATION

### Cleanout Doors and Frames

PLATE NUMBER	SIZE OPENING	PRICE DOZEN
A-2521	8x10	\$24.00
A-2522	10x12	36.00
A-2523	12x14	54.00



A-3805

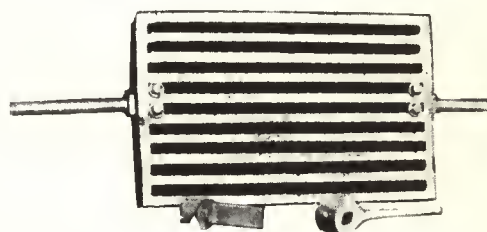
ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## GRATES WITH TRUNIONS AND PIPE

## Incinerator Grate with Trunions and Pipe

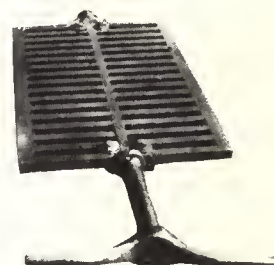
WIDTH	LENGTH	APPROXIMATE WEIGHT	LIST PRICE
8	12	22	\$4.40
9½	17½	46	5.20
12	8	22	4.40
12	12	32	6.40
12	14	42	8.40
12	19	47	9.40
14	14	46	9.20
24	24	108	21.60



A-4130

## Flat Grate with Trunions and Pipe

WIDTH	LENGTH	APPROXIMATE WEIGHT	LIST PRICE
18	31	79	\$ 17.00
18	36	84	20.00
18	42	90	23.00



A-4140

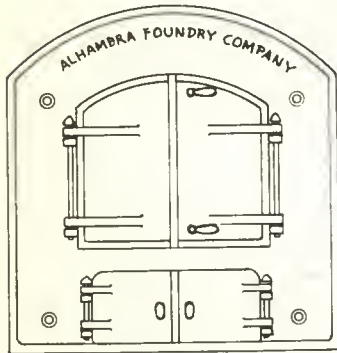
## "V" Grate with Trunions and Pipe

WIDTH	LENGTH	APPROXIMATE WEIGHT	LIST PRICE
18	31	125	\$25.00
18	42	170	34.00



A-4150

## INCINERATOR FRONTS

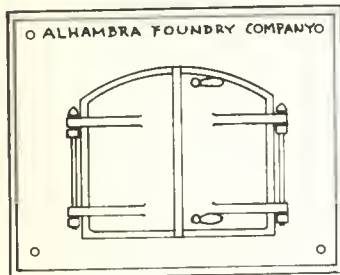


A-3760-A-3761

## School and Building Type

HEAVY DUTY—CAST IRON

PLATE NUMBER	HEIGHT OVERALL	WIDTH OVERALL	CHARGING DOOR	ASH DOOR	APPROXIMATE WEIGHT	LIST PRICE
A-3760	55½	54	26x30	10½x30	1265	\$347.00
A-3761	74½	55	33½x34	11x25	1625	445.00



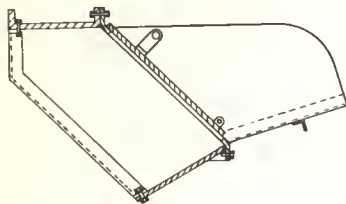
A-3870

## Incinerator Doors with Front Frames

PLATE NUMBER	HEIGHT FRAME	WIDTH FRAME	HEIGHT DOOR	WIDTH DOOR	APPROXIMATE WEIGHT	LIST PRICE
A-3871	36	40	26	30	375	\$110.00
A-3872	46	46	34	34	550	160.00
A-3873	48	48	36	36	620	185.00

## HOPPER CHARGING DOOR ASSEMBLY FOR 45-DEGREE LEDGE

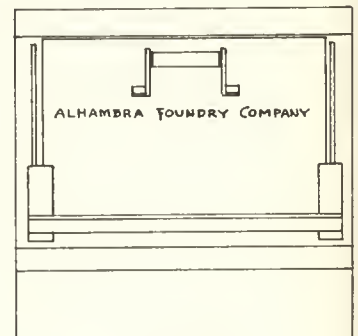
INCLUDES DOOR, HOPPER, DEAD PLATE, LINTEL AND FRAMES AS UNIT



A-3890

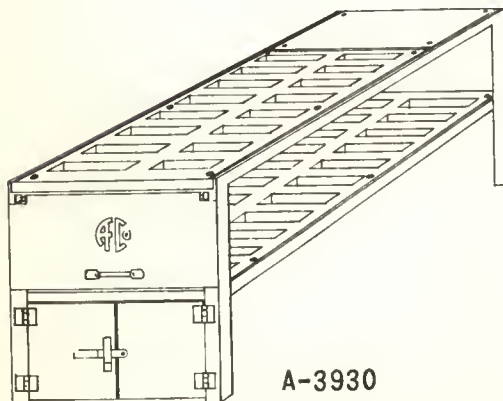
PLATE NUMBER	HEIGHT VERTICAL	WIDTH OVERALL	SIZE OPENING	APPROX. WEIGHT	LIST PRICE
A-3890	18	30	24x24	525	\$215.00

Detail Drawing Furnished on Request.



A-3890

## PARK STOVE FOR BUILDING-IN THREE SIDES



A-3930

## HEAVY DUTY

PLATE NUMBER	HEIGHT OVERALL	LENGTH OVERALL	WIDTH OVERALL	APPROXIMATE WEIGHT	LIST PRICE
A-3930	21	22	17½	375	\$69.50

Heavy Cast Iron Cooking Grate and Plate; Fire Grate, Charging and Ash Door.

Assembled and Shipped as a Unit.

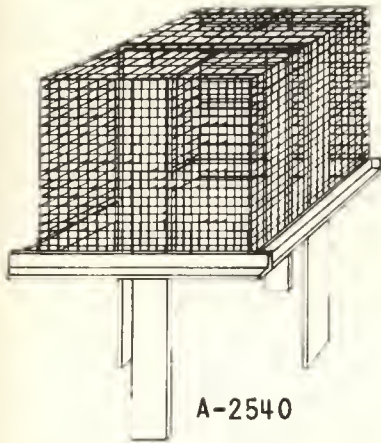
Name of City or Owner Cast on Door for Slight Additional Cost.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## INCINERATOR SPARK ARRESTOR

MADE ANY SIZE OR STYLE

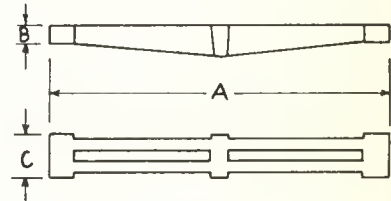
PRICES ON APPLICATION WITH DRAWING



A-2540

## CAST IRON GRATE BARS

A4000—TWO-BAR GRATES  
ANY SIZE NOT SHOWN CAN BE MADE  
UP AT SLIGHT ADDITIONAL COST



A-4000

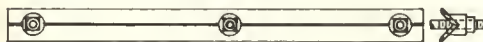
"A"	"B"	"C"	APPROXIMATE WEIGHT	LIST PRICE	"A"	"B"	"C"	APPROXIMATE WEIGHT	LIST PRICE
18	2	3	19	\$ 3.00	36	1½	3	48	\$ 9.60
21¼	2	2¾	20	3.00	36	1¾	4¾	36	7.20
24	1	2	16	3.20	41½	2	3	44	8.80
27	1¾	2½	22	4.40	42	1½	2	47	9.40
30	2	3	30	6.00	42	2	4-1/8	60	12.00
30	2½	3½	45	9.00	43	2½	3	56	11.20
32	2½	3½	49	10.00	44	1½	2¼	38	7.60
34	2	2¾	34	6.80	46½	2	3	48	9.60
34½	1¾	2½	28	5.60	48	1	3	38	7.60
35	1½	3	33	6.60	48	2	2½	45	9.00
35	1¾	3	39	8.00	49½	1½	3	45	9.00
36	1½	3	36	7.20	54	2½	3	65	13.00
36	1½	3	42	8.40	64	2¼	3½	87	17.40
36	1½	4	39	8.00	29¼	2	3	41	8.20
33½	2½	4½	54	10.80	35	2	4½	61	12.20



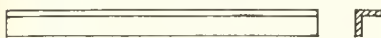
A-2611



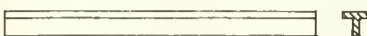
A-2612



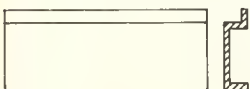
A-2613



A-2614



A-2615



A-2616

A-2611 3/4 Inch round Tie Rods Threaded  
4" both ends and furnished with

Four Nuts - Per Foot .....\$ .60

A-2612 2½x2½x¼ Angle Braces with clips

for Tie Rods - Per Foot .....\$1.55

A-2613 2½x2½x¼ Buck Stays with C.I.

Special Washers - Per Foot .....\$1.25

A-2614 C.I. Angle Grate Support

3x3x½ - 6.25 lbs. Per Foot .....\$1.15

3½x3½x¾ - 20.25 lbs. Per Foot ..... 3.35

4x4x¾ - 22.50 lbs. Per Foot..... 3.70

Per lb. 16½¢

A-2615 C.I. Tee Grate Support

3x3x½ - 6.25 lbs. Per Foot .....\$1.15

3½x3½x¾ - 20.25 lbs. Per Foot ..... 3.35

4x4x¾ - 22.50 lbs. Per Foot ..... 3.70

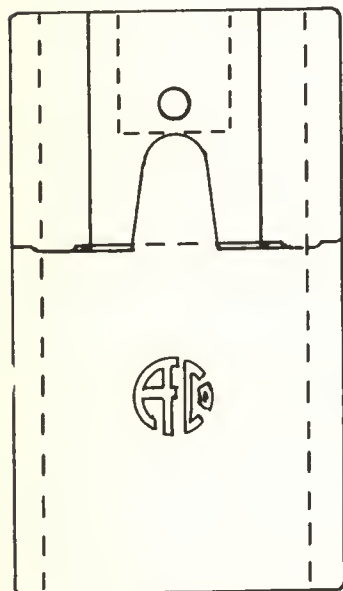
A-2616 C.I. Dead Plate

Made to order - Per lb. ....\$ .18

Special Sizes of any of above made to order.



## CONSTRUCTION EQUIPMENT



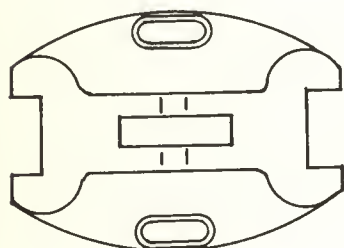
### Pile Driver Hammers

HAMMERS CAN BE SUPPLIED IN ANY WEIGHT DESIRED  
DIMENSIONS ARE MADE TO SUIT THE SLIDES  
PRICES AND DRAWINGS ON APPLICATION

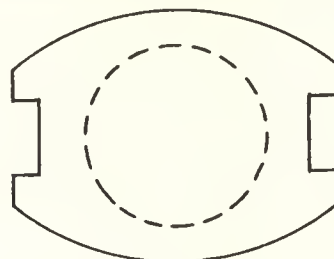
### Pile Driver Follower Block

CAST STEEL

TO PROTECT HEADS OF PILES WHILE DRIVING

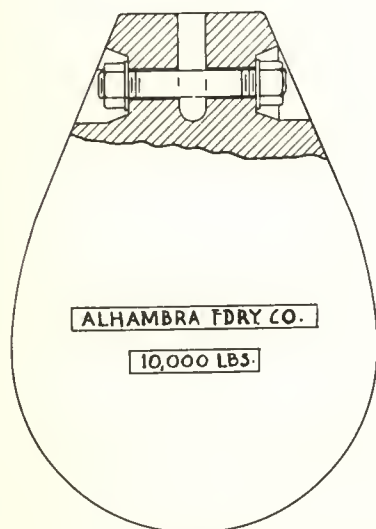


A-2830



A-2831

PRICES ON APPLICATION



A-2840

### Drop Breaking Balls

DROP BALL CAN BE SUPPLIED IN ANY WEIGHT DESIRED  
MANY PATTERN WEIGHTS AVAILABLE  
LINK, PINS AND SWIVELS FURNISHED ON ORDER  
PRICES ON APPLICATION

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## WEIGHTS OF BRONZE BUSHING AND SOLID STOCK

## REGULAR STOCK SIZES AND THEORETICAL WEIGHTS—SPECIAL SIZES AND LENGTHS MADE TO ORDER

SOLIDS 12" LONG				CORED 12" LONG			CORED 12" LONG			CORED 12" LONG			CORED 12" LONG			CORED 12" LONG			CORED 12" LONG			CORED 14" LONG		
Size Inches	Round Wt. Lbs.	Hex. Wt. Lbs.	Square Wt. Lbs.	Outside Diam. Inches	Inside Diam. Inches	Wt. Lbs.	Outside Diam. Inches	Inside Diam. Inches	Wt. Lbs.	Outside Diam. Inches	Inside Diam. Inches	Wt. Lbs.	Outside Diam. Inches	Inside Diam. Inches	Wt. Lbs.	Outside Diam. Inches	Inside Diam. Inches	Wt. Lbs.	Outside Diam. Inches	Inside Diam. Inches	Wt. Lbs.	Outside Diam. Inches	Inside Diam. Inches	Wt. Lbs.
$\frac{1}{8}$	$\frac{3}{4}$	$\frac{3}{4}$		1	$\times \frac{1}{2}$	$2\frac{1}{4}$	$1\frac{7}{8}$	$\times 1\frac{1}{8}$	$6\frac{3}{4}$	$2\frac{1}{2}$	$\times \frac{1}{2}$	18	3	$\times 1$	24	$3\frac{3}{4}$	$\times 1\frac{1}{2}$	35	5	$\times 2\frac{1}{4}$	60	$6\frac{1}{4}$	$\times 3$	107
$\frac{5}{16}$	$1\frac{1}{4}$	$1\frac{1}{4}$		1	$\times \frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	$\times 1\frac{1}{4}$	$5\frac{3}{4}$	$2\frac{1}{2}$	$\times \frac{3}{4}$	17	3	$\times 1\frac{1}{4}$	$22\frac{1}{2}$	$3\frac{3}{4}$	$\times 1\frac{3}{4}$	33	5	$\times 2\frac{1}{2}$	57	$6\frac{1}{4}$	$\times 3\frac{1}{2}$	96
$\frac{3}{4}$	$1\frac{3}{4}$	2		$1\frac{1}{8}$	$\times \frac{1}{2}$	3	$1\frac{7}{8}$	$\times 1\frac{3}{8}$	5	$2\frac{1}{2}$	$\times 1$	$15\frac{1}{2}$	3	$\times 1\frac{3}{8}$	$21\frac{1}{2}$	$3\frac{3}{4}$	$\times 2$	31	5	$\times 2\frac{3}{4}$	53	$6\frac{1}{4}$	$\times 4$	85
$\frac{7}{8}$	$2\frac{1}{2}$	$2\frac{3}{4}$		$1\frac{1}{4}$	$\times \frac{5}{8}$	$2\frac{1}{2}$	$1\frac{7}{8}$	$\times 1\frac{1}{2}$	4	$2\frac{1}{2}$	$\times 1\frac{1}{8}$	15	3	$\times 1\frac{1}{2}$	21	$3\frac{3}{4}$	$\times 2\frac{1}{4}$	27	5	$\times 3$	50	$6\frac{1}{4}$	$\times 4\frac{1}{2}$	72
1	$3\frac{1}{4}$	$3\frac{1}{2}$	4	$1\frac{1}{2}$	$\times \frac{3}{4}$	2	2	$\times \frac{1}{2}$	12	$2\frac{1}{2}$	$\times 1\frac{1}{4}$	$14\frac{1}{4}$	3	$\times 1\frac{5}{8}$	19	$3\frac{3}{4}$	$\times 2\frac{1}{2}$	$23\frac{1}{2}$	5	$\times 3\frac{1}{4}$	44	$6\frac{1}{4}$	$\times 4\frac{1}{2}$	68
$1\frac{1}{8}$	4	$4\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{3}{4}$	$\times \frac{1}{2}$	4	2	$\times \frac{5}{8}$	$11\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{1}{8}$	$13\frac{1}{2}$	3	$\times 1\frac{3}{2}$	18	$3\frac{3}{4}$	$\times 2\frac{3}{4}$	20	5	$\times 3\frac{1}{2}$	39	$6\frac{1}{4}$	$\times 4\frac{3}{4}$	60
$1\frac{1}{4}$	$4\frac{3}{4}$	$5\frac{1}{4}$	6	$1\frac{1}{4}$	$\times \frac{5}{8}$	$3\frac{1}{2}$	2	$\times \frac{3}{2}$	$10\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{1}{2}$	$12\frac{1}{2}$	3	$\times 1\frac{1}{8}$	$16\frac{1}{2}$	$3\frac{3}{4}$	$\times 3$	16	5	$\times 3\frac{3}{4}$	34	$6\frac{1}{4}$	$\times 5$	52
$1\frac{3}{8}$	$5\frac{1}{2}$	$6\frac{1}{2}$	7	$1\frac{1}{4}$	$\times \frac{3}{4}$	3	2	$\times \frac{7}{8}$	$9\frac{3}{4}$	$2\frac{1}{2}$	$\times \frac{5}{8}$	$11\frac{1}{2}$	3	$\times 2$	$15\frac{1}{2}$	4	$\times 1$	44	5	$\times 4$	28	$6\frac{1}{2}$	$\times 3$	115
$1\frac{1}{2}$	7	$7\frac{1}{2}$	$8\frac{1}{2}$	$1\frac{1}{4}$	$\times \frac{7}{8}$	$2\frac{1}{2}$	2	$\times 1$	9	$2\frac{1}{2}$	$\times 1\frac{3}{4}$	10	3	$\times 2\frac{1}{8}$	14	4	$\times 1\frac{1}{2}$	40	$5\frac{1}{4}$	$\times 3$	57	$6\frac{1}{2}$	$\times 3\frac{1}{2}$	103
$1\frac{5}{8}$	8	$8\frac{1}{2}$	10	$1\frac{3}{8}$	$\times \frac{1}{2}$	$4\frac{3}{4}$	2	$\times 1\frac{1}{4}$	$8\frac{1}{4}$	$2\frac{1}{2}$	$\times 1\frac{1}{8}$	$8\frac{1}{4}$	3	$\times 2\frac{1}{4}$	12	4	$\times 1\frac{3}{4}$	39	$5\frac{1}{4}$	$\times 3\frac{1}{4}$	51	$6\frac{1}{2}$	$\times 4$	90
$1\frac{3}{4}$	9	10	12	$1\frac{3}{8}$	$\times \frac{3}{8}$	$4\frac{1}{2}$	2	$\times 1\frac{1}{4}$	$7\frac{1}{2}$	$2\frac{1}{2}$	$\times 1$	$17\frac{3}{4}$	$3\frac{1}{8}$	$\times 1\frac{1}{2}$	23	4	$\times 2$	37	$5\frac{1}{4}$	$\times 3\frac{1}{2}$	46	$6\frac{1}{2}$	$\times 4\frac{1}{4}$	84
$1\frac{7}{8}$	11	12	$13\frac{1}{2}$	$1\frac{3}{8}$	$\times \frac{3}{4}$	$3\frac{1}{2}$	2	$\times 1\frac{3}{8}$	$6\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{1}{4}$	18	$3\frac{1}{8}$	$\times 1\frac{5}{8}$	21	4	$\times 2\frac{1}{4}$	34	$5\frac{1}{4}$	$\times 3\frac{3}{4}$	41	$6\frac{1}{2}$	$\times 4\frac{1}{2}$	75
2	$12\frac{1}{2}$	$13\frac{1}{2}$	$15\frac{1}{2}$	$1\frac{3}{4}$	$\times \frac{7}{8}$	$3\frac{1}{2}$	2	$\times 1\frac{1}{2}$	$5\frac{1}{4}$	$2\frac{1}{2}$	$\times 1\frac{3}{8}$	15	$3\frac{1}{8}$	$\times 1\frac{3}{2}$	20	4	$\times 2\frac{1}{2}$	30	$5\frac{1}{4}$	$\times 4$	35	$6\frac{1}{2}$	$\times 4\frac{1}{2}$	68
$2\frac{1}{8}$	14			$1\frac{1}{2}$	$\times \frac{1}{2}$	6	2	$\times 1\frac{5}{8}$	4	$2\frac{1}{2}$	$\times 1\frac{1}{2}$	14	$3\frac{1}{4}$	$\times 1\frac{7}{8}$	$18\frac{1}{2}$	4	$\times 2\frac{3}{4}$	26	$5\frac{1}{4}$	$\times 4\frac{1}{4}$	29	$6\frac{1}{2}$	$\times 5$	59
$2\frac{1}{4}$	$15\frac{1}{2}$	17	19	$1\frac{1}{2}$	$\times \frac{5}{8}$	$5\frac{1}{2}$	$2\frac{1}{4}$	$\times \frac{3}{2}$	12	$2\frac{1}{2}$	$\times 1\frac{5}{8}$	$12\frac{1}{2}$	$3\frac{1}{8}$	$\times 2$	$17\frac{1}{2}$	4	$\times 3$	22	$5\frac{1}{2}$	$\times 2$	78	7	$\times 3$	137
$2\frac{3}{8}$	17			$1\frac{1}{2}$	$\times \frac{3}{4}$	5	$2\frac{1}{4}$	$\times \frac{7}{8}$	$11\frac{1}{4}$	$2\frac{1}{2}$	$\times 1\frac{3}{4}$	$11\frac{1}{2}$	$3\frac{1}{8}$	$\times 2\frac{1}{8}$	16	4	$\times 3\frac{1}{4}$	18	$5\frac{1}{2}$	$\times 2\frac{1}{2}$	72	7	$\times 4$	118
$2\frac{1}{2}$	$18\frac{1}{2}$	21	24	$1\frac{1}{2}$	$\times \frac{7}{8}$	$4\frac{1}{2}$	$2\frac{1}{4}$	$\times 1$	$10\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{7}{8}$	11	$3\frac{1}{8}$	$\times 2\frac{1}{4}$	14	4	$\frac{1}{2}$	42	$5\frac{1}{2}$	$\times 3$	64	7	$\times 4\frac{1}{2}$	103
$2\frac{5}{8}$	20			$1\frac{1}{2}$	$\times 1$	4	$2\frac{1}{4}$	$\times 1\frac{1}{8}$	$9\frac{3}{4}$	$2\frac{1}{2}$	$\times \frac{1}{2}$	22	$3\frac{1}{4}$	$\times 1$	29	4	$\frac{1}{2}$	39	$5\frac{1}{2}$	$\times 3\frac{1}{2}$	54	7	$\times 5$	84
$2\frac{3}{4}$	$22\frac{1}{2}$	25	29	$1\frac{1}{2}$	$\times 1\frac{1}{8}$	$3\frac{1}{2}$	$2\frac{1}{4}$	$\times 1\frac{1}{4}$	$8\frac{3}{4}$	$2\frac{1}{2}$	$\times \frac{3}{2}$	21	$3\frac{1}{4}$	$\times 1\frac{1}{4}$	$27\frac{1}{2}$	4	$\frac{1}{4}$	36	$5\frac{1}{2}$	$\times 3\frac{3}{4}$	49	7	$\times 5\frac{1}{2}$	70
$2\frac{7}{8}$	25			$1\frac{5}{8}$	$\times \frac{1}{2}$	$7\frac{1}{4}$	$2\frac{1}{8}$	$\times 1\frac{3}{8}$	$7\frac{3}{4}$	$2\frac{1}{2}$	$\times 1$	20	$3\frac{1}{4}$	$\times 1\frac{1}{2}$	26	4	$\frac{1}{4}$	31	$5\frac{1}{2}$	$\times 4$	44	7	$\frac{1}{2}$	136
3	$27\frac{1}{2}$	30	35	$1\frac{5}{8}$	$\times \frac{5}{8}$	$6\frac{1}{2}$	$2\frac{1}{8}$	$\times 1\frac{1}{2}$	$6\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{1}{8}$	19	$3\frac{1}{4}$	$\times 1\frac{5}{8}$	25	4	$\frac{1}{4}$	27	$5\frac{1}{2}$	$\times 4\frac{1}{4}$	38	7	$\frac{1}{2}$	123
$3\frac{1}{4}$	32	35		$1\frac{5}{8}$	$\times \frac{3}{2}$	$6\frac{1}{2}$	$2\frac{1}{8}$	$\times 1\frac{5}{8}$	$5\frac{3}{4}$	$2\frac{1}{2}$	$\times 1\frac{1}{2}$	18	$3\frac{1}{4}$	$\times 1\frac{3}{2}$	23	4	$\frac{1}{4}$	22	$5\frac{1}{2}$	$\times 4\frac{1}{2}$	32	7	$\frac{1}{2}$	105
$3\frac{1}{2}$	36	40	47	$1\frac{5}{8}$	$\times \frac{7}{8}$	$5\frac{3}{4}$	$2\frac{1}{4}$	$\times \frac{3}{2}$	$13\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{3}{8}$	17	$3\frac{1}{4}$	$\times 1\frac{7}{8}$	21	4	$\frac{1}{2}$	54	$5\frac{3}{4}$	$\times 3$	72	7	$\frac{1}{2}$	90
$3\frac{3}{4}$	41	46		$1\frac{5}{8}$	$\times 1$	5	$2\frac{1}{4}$	$\times \frac{7}{8}$	13	$2\frac{1}{2}$	$\times 1\frac{1}{2}$	16	$3\frac{1}{4}$	$\times 2$	20	4	$\frac{1}{2}$	52	$5\frac{3}{4}$	$\times 3\frac{1}{2}$	62	7	$\frac{1}{2}$	67
4	48	53	61	$1\frac{5}{8}$	$\times 1\frac{1}{8}$	$4\frac{1}{2}$	$2\frac{1}{4}$	$\times 1$	$12\frac{3}{4}$	$2\frac{1}{2}$	$\times 1\frac{5}{8}$	15	$3\frac{1}{4}$	$\times 2\frac{1}{8}$	18	4	$\frac{1}{2}$	49	$5\frac{3}{4}$	$\times 4$	52	8	$\times 4$	164
$4\frac{1}{4}$	54			$1\frac{5}{8}$	$\times 1\frac{1}{4}$	$3\frac{1}{2}$	$2\frac{1}{4}$	$\times 1\frac{1}{8}$	$11\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{3}{4}$	13	$3\frac{1}{4}$	$\times 2\frac{1}{4}$	$16\frac{1}{2}$	4	$\frac{1}{2}$	46	$5\frac{3}{4}$	$\times 4\frac{1}{4}$	46	8	$\times 4\frac{1}{2}$	149
$4\frac{1}{2}$	61	67		$1\frac{5}{8}$	$\times \frac{1}{2}$	$8\frac{1}{4}$	$2\frac{1}{4}$	$\times 1\frac{1}{4}$	$10\frac{1}{2}$	$2\frac{1}{2}$	$\times 1\frac{7}{8}$	14	$3\frac{1}{4}$	$\times 2\frac{1}{2}$	$14\frac{1}{2}$	4	$\frac{1}{2}$	42	$5\frac{3}{4}$	$\times 4\frac{1}{4}$	40	8	$\times 5$	133
$4\frac{3}{4}$	68			$1\frac{3}{4}$	$\times \frac{5}{8}$	8	$2\frac{1}{4}$	$\times 1\frac{3}{8}$	10	$2\frac{1}{2}$	$\times 2$	11	$3\frac{1}{8}$	$\times 2$	22	4	$\frac{1}{2}$	38	$5\frac{3}{4}$	$\times 4\frac{3}{4}$	32	8	$\times 5\frac{1}{2}$	116
5	75	83		$1\frac{3}{4}$	$\times \frac{3}{4}$	$7\frac{1}{2}$	$2\frac{1}{4}$	$\times 1\frac{1}{2}$	$8\frac{1}{2}$	$2\frac{1}{2}$	$\times 2\frac{1}{8}$	10	$3\frac{1}{8}$	$\times 2\frac{1}{4}$	$18\frac{1}{2}$	4	$\frac{1}{2}$	34	6	$\times 2$	98	8	$\times 6$	95
$5\frac{1}{4}$	82			$1\frac{3}{4}$	$\times \frac{7}{8}$	7	$2\frac{1}{4}$	$\times 1\frac{5}{8}$	$7\frac{1}{4}$	$2\frac{1}{2}$	$\times 1$	21	$3\frac{1}{8}$	$\times 2\frac{1}{2}$	$16\frac{1}{2}$	4	$\frac{1}{2}$	29	6	$\times 2\frac{1}{2}$	91	9	$\times 5$	187
$5\frac{1}{2}$	91	100		$1\frac{3}{4}$	$\times 1$	$6\frac{1}{4}$	$2\frac{3}{8}$	$\times \frac{3}{2}$	15	$2\frac{1}{2}$	$\times 1\frac{1}{4}$	20	$3\frac{1}{2}$	$\times 1$	$33\frac{1}{2}$	4	$\frac{1}{2}$	24	6	$\times 3$	78	9	$\times 7$	106
$5\frac{3}{4}$	99			$1\frac{3}{4}$	$\times 1\frac{1}{8}$	$5\frac{3}{4}$	$2\frac{3}{8}$	$\times 1$	14	$2\frac{1}{2}$	$\times 1\frac{1}{2}$	18	$3\frac{1}{2}$	$\times 1\frac{1}{4}$	32	4	$\frac{3}{4}$	53	6	$\times 3\frac{1}{2}$	70	10	$\times 6$	220
6	109	120		$1\frac{3}{4}$	$\times 1\frac{1}{4}$	$4\frac{1}{2}$	$2\frac{3}{8}$	$\times 1\frac{1}{8}$	13	$2\frac{1}{2}$	$\times 1\frac{5}{8}$	17	$3\frac{1}{2}$	$\times 1\frac{1}{2}$	30	4	$\frac{3}{4}$	48	6	$\times 4$	58	10	$\times 7$	178
SOLIDS 14" LONG				$1\frac{1}{2}$	$\times 1\frac{1}{8}$	$3\frac{3}{4}$	$2\frac{1}{4}$	$\times 1\frac{1}{4}$	$12\frac{1}{4}$	$2\frac{1}{2}$	$\times 1\frac{3}{4}$	$15\frac{1}{2}$	$3\frac{1}{2}$	$\times 1\frac{3}{4}$	$27\frac{1}{2}$	4	$\frac{3}{4}$	42	6	$\times 4\frac{1}{4}$	53	10	$\times 8$	125
				$1\frac{1}{2}$	$\times \frac{1}{2}$	10	$2\frac{1}{4}$	$\times 1\frac{3}{8}$	$11\frac{1}{4}$	$2\frac{1}{2}$	$\times 1\frac{7}{8}$	$14\frac{1}{2}$	$3\frac{1}{2}$	$\times 2$	25	4	$\frac{3}{4}$	38	6	$\times 4\frac{1}{2}$	48			

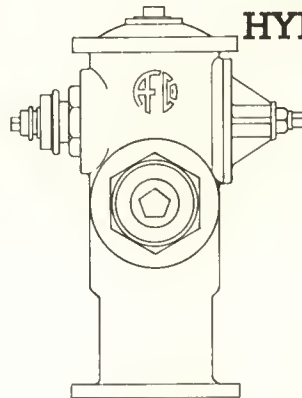
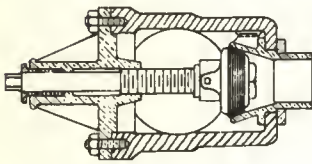
Plate No. 4270 - Large Bronze bushing or Solid Stock - List Price Per Pound ..... \$.72 lb.

Small Bronze bushing or Solid Stock - List Price Per Pound ..... .84 lb.

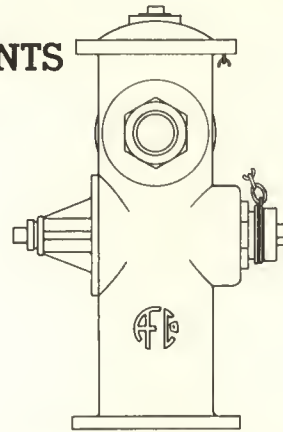
Plate No. 4280 - Cast Iron - List Price Per Pound ..... Under 2" .36

Over 2" .26

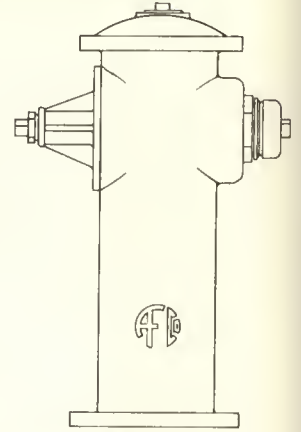
To compute weight of CAST IR

FIRE  
HYDRANTS

A-4506



A-4508



A-4510

## Los Angeles Type Fire Hydrants

BODY 6"—NET DIAMETER

PLATE NUMBER	2½" HOSE OUTLETS	STEAMER OUTLETS	GROUND CONNECTION	LIST PRICE
A-4503	Two	One	30" Bury	\$200.00
A-4504	Two	One	None	187.50
A-4505	One	One	30" Bury	160.00
A-4506	One	One	None	142.00
A-4507	Two	None	30" Bury	135.50
A-4508	Two	None	None	120.00
A-4509	One	None	30" Bury	110.00
A-4510	One	None	None	100.00

Add for each 6" additional bury depth - \$3.40

## San Diego Navy Public Works Office Fire Hydrants

BODY 8" NET DIAMETER

A-4501	Two	One	30" Bury	\$240.00
A-4502	Two	One	None	200.00

Fire Hydrants, when purchased complete with Bury or Companion Flange include Bolts and Gaskets.

## 6" Hub Inlet Burys Only—4" or 6" Hub Inlets

LENGTH		LENGTH		LENGTH		LENGTH	
12	\$31.80	20	\$36.90	30	\$41.00	42	\$51.50
18	36.90	24	41.00	36	45.00	48	62.00

For Flanged Inlet on Bury, Add - Std. \$5.00 XHeavy - \$11.80

## 6" Flange and Hydrant Extensions (Spools)

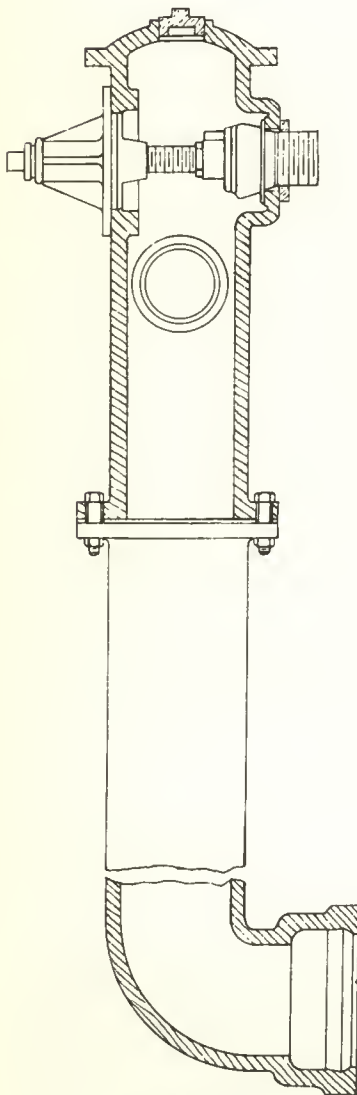
SIZE		SIZE		SIZE		SIZE	
6x6 -	\$22.50	6x10 -	\$26.40	6x16 -	\$32.00	6x24 -	\$39.50
6x8 -	24.20	6x12 -	28.40	6x18 -	34.00	6x30 -	44.50

Includes one Gasket and one set of Bolts.

## A4500 Fire Hydrant Extras

For each additional 6" bury depth, add.....	\$3.40
For drilling and plugging top, 2" or 2½", add.....	4.15
For all brass bolted bonnet, 2½", add.....	7.50
For all brass bolted bonnet, 4" or 4½", add.....	12.45
Five hole, all bronze spanner wrench.....	3.00

Cast Iron Pentagon Stem Protector Nuts Furnished on Specification without Additional Charge.



A-4500



## FIRE HYDRANTS

### California Keystone Type Fire Hydrants



A-4541



A-4533



A-4531



A-4523

PLATE NUMBER	SIZE BARREL	2 1/2" HOSE OUTLETS	STEAMER OUTLETS	GROUND CONNECTION	LIST PRICE
A-4520	6"	Two	One	30" Bury	\$192.00
A-4521	6"	Two	One	None	175.00
A-4522	6"	One	One	30" Bury	160.00
A-4523	6"	One	One	None	142.00
A-4530	6"	Two	None	30" Bury	138.00
A-4531	6"	Two	None	None	120.00
A-4532	6"	One	None	30" Bury	110.00
A-4533	6"	One	None	None	100.00
A-4540	4"	Two	None	30" Bury	117.00
A-4541	4"	Two	None	None	100.00
A-4542	4"	One	None	30" Bury	99.00
A-4543	4"	One	None	None	84.50

Add for Additional 6" Bury Depth - 6" Bury - \$3.40 - 4" Bury - \$2.35.  
Add for Companion Flange - 6" x 11" - \$7.30 - 4" x 9" - \$5.10.

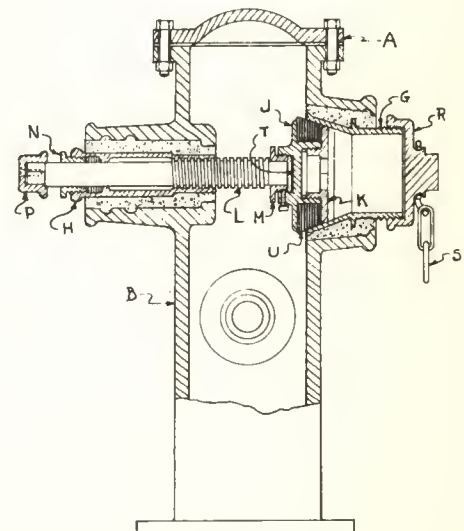
When Hydrants are Furnished with Ground Connection, Bolts and Gasket are Included.

### California Keystone Type Fire Hydrants

SUBMIT SAMPLES, IF POSSIBLE

PART LETTER	PART DESCRIPTION	LIST PRICES	
		STEAMER	2 1/2"
R	Hose Cap	\$7.45	\$4.30
K	Valve Retainer	4.85	2.70
G	Hose Outlet and Valve Seat	31.50	15.00
J	Valve Carrier Body Only	20.00	7.45
L	Valve Stem	16.00	13.50
H	Valve Sleeve and Stem Nut	14.50	14.00
M	Locknuts	3.50	3.50
N	Hex Packing Gland	3.50	3.50
U	Rubber Valve	3.15	2.10
S	Hydrant Cap Chains	.75	.75
	Retaining Ring for Cap Chains	.70	.65
	Washers for Caps	.65	.45
	Valve Carrier Assembly Complete	30.00	15.75
P	Pentagon Protector Nut	.90	.90
	Gasket for Ground Connection	1.05	1.05
	Bolt Set for Ground Connection	.95	.95
	Five Hole Spanner Wrench	3.00	3.00

Flange on 6" Hydrant is 11" Diameter F & D.  
Six 3/4" Holes on 9-3/8" Bolt Circle.



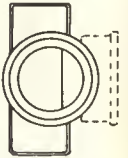
Keystone Parts Schedule

### A470—Rectangular Cast Iron Pipe and Adaptors FOR USE UNDER SIDEWALKS OR OTHER NARROW SPACES

OUTSIDE PIPE	OUTSIDE HUBS	TRANSVERSE AREA—NET	LAYING LENGTH	LIST PRICES—5 FT. LENGTHS	
				BLACK	GALVANIZED
3"x5"	4 1/4"x6 1/4"	11.25 Sq. In.	5'0"	\$30.00	\$48.00
4"x6"	5 1/4"x7 1/4"	19.25 Sq. In.	5'0"	32.50	52.00
3"x9"	4 1/4"x10 1/4"	21.20 Sq. In.	5'0"	34.60	55.00
4"x8 1/2"	5 1/4"x9 3/4"	28.00 Sq. In.	5'0"	40.00	64.00
3"x12 1/2"	4 1/4"x14"	30.00 Sq. In.	5'0"	45.00	70.00
4"x14"	5 1/4"x15 1/4"	47.50 Sq. In.	5'0"	55.00	88.00
5"x12"	6 1/4"x13 1/4"	51.80 Sq. In.	5'0"	55.00	88.00

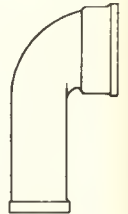


A-470



### Adaptors—Round to Rectangular Pipe

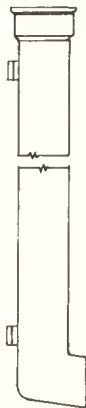
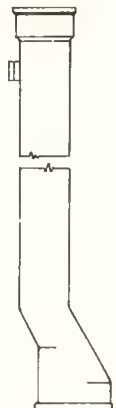
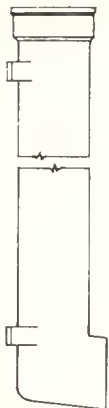
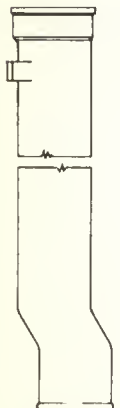
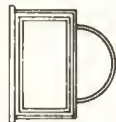
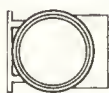
ROUND PIPE	RECT. PIPE	LAYING LENGTH	LIST PRICES—STRAIGHT OR 90°	
			BLACK	GALVANIZED
4"	3"x5"	1'0"	\$12.50	\$20.00
4"	4"x6"	1'0"	13.50	21.60
5"	3"x9"	1'0"	13.50	21.60
5"	4"x8 1/2"	1'0"	15.00	24.00
6"	3"x12 1/2"	1'0"	17.50	28.00
6"	4"x8 1/2"	1'0"	16.00	25.60
8"	4"x14"	1'0"	22.50	35.00
8"	5"x12"	1'0"	22.50	35.00



ADAPTORS

We will Fabricate Rectangular Pipe to any Dimensions, with Connections as Required, Finished with Asphalt Paint or Galvanized.

### Cast Iron Downspout Boots



A-416

A-417

A-418

A-419

PLATE NUMBER	LEADER SIZE	LENGTH	LIST PRICES	
			BLACK	GALVANIZED
A-416	3"Ø	24"	\$ 8.20	\$13.60
	3"Ø	60"	18.20	25.25
	4"Ø	24"	9.80	13.70
	4"Ø	60"	22.20	31.40
	6"Ø	24"	13.70	19.20
	6"Ø	60"	33.00	46.25
A-417	3"Ø	60"	\$21.00	\$29.40
	4"Ø	60"	23.80	33.15
	6"Ø	60"	35.00	49.00
A-418	3x4	24"	\$11.70	\$16.40
	3x4	60"	28.00	39.20
	4x5	24"	16.10	22.25
	4x5	60"	36.40	51.00
A-419	3x4	60"	\$33.50	\$47.00
	4x5	60"	42.00	58.75

A-416 and A-418 have one inch offset.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

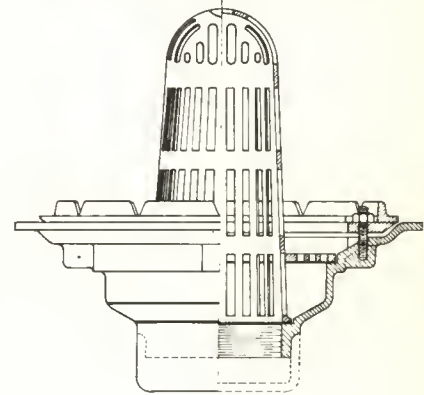
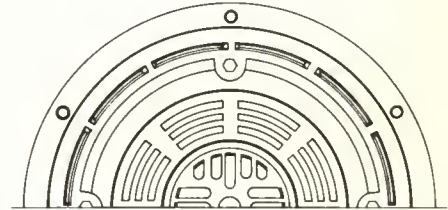


## ROOF DRAINS

## A400 Standard Series

Cast iron japanned finish roof drain for use in construction where ply roofing is used. Wedge type companion bolted clamping ring flange securely bonds roofing to drain line. Drainage through dome strainer begins well below the roof level to several inches above, giving positive drainage even when cleaning has been neglected. A secondary strainer holds coarse debris as well as to hold dome from tilting. Debris easily removed by lifting strainers without removal of bolts or connections.

OPTIONAL SPECIFICATIONS: Unless otherwise specified, roof drains will be supplied cast iron for inside caulk outlet. Cast iron galvanized; cast iron bodies with brass strainers and clamping flange can be supplied. Brass is suggested where any rust stain to walls might occur. Female threaded or spigot outlets available. Top packed or separate line expansion joints can be furnished.



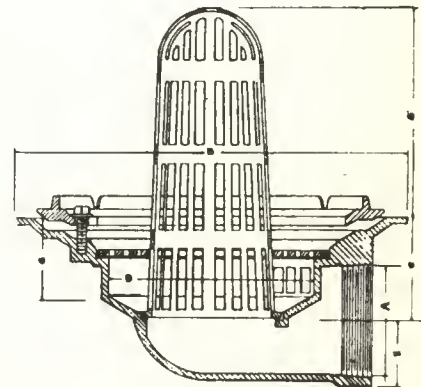
A-400

## LIST PRICES AND SPECIFICATIONS

PLATE NUMBER	SIZE OUTLET	RATING SQ. FT.	APPROXIMATE WEIGHT	LIST PRICES			DIAMETER FLANGE	DEPTH SCREW	BODY CAULK
				BLACK	GALVANIZED	BRASS			
A-402	2	850	45	\$24.00	\$40.20	\$92.20	16	5½	6-3/4
A-403	3	1,500	45	24.00	40.20	92.20	16	5½	6-3/4
A-404	4	2,500	45	24.00	40.20	92.20	16	5½	6-3/4
A-405	5	4,500	55	29.30	48.60	109.10	18	5½	7
A-406	6	7,000	65	32.30	54.90	133.40	18	5½	7
A-408	8	12,500	85	45.00	74.10	192.50	20	6	8-3/8
Dome Strainer only.				9.00	13.50	23.20			
Clamping Ring only.				6.00	8.00	13.00			

## A410 Series—Side Outlet Roof Drains

PLATE NUMBER	SIZE OUTLET	LIST PRICES			DEPTH OVERALL	DEPTH TO CENTER OUTLET
		BLACK	GALVANIZED	BRASS		
A-410	2	\$31.50	\$52.80	\$127.40	6½	5
A-411	3	31.50	52.80	127.40	6½	4½
A-412	4	31.50	52.80	127.40	6½	4
A-413	5	39.00	62.70	152.10	9¾	5¼
A-414	6	43.20	74.50	187.00	9¾	5¾



A-410

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## ROOF DRAINS

## A420—Promenade Deck Drain

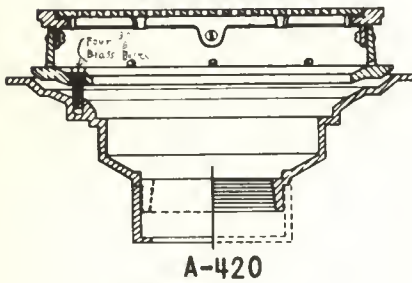
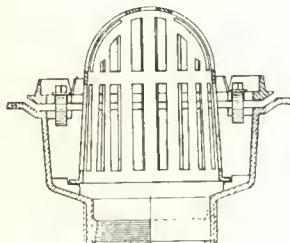


PLATE NUMBER	SIZE OUTLET	C. I. BLACK	C. I. GALV.	BRASS TOP BLACK	BRASS TOP GALV.
A-421	2	\$30.00	\$49.80	\$52.20	\$72.20
A-422	3	30.00	49.80	52.20	72.20
A-423	4	30.00	49.80	52.20	72.20
A-424	5	36.80	58.70	58.50	82.10
A-425	6	40.50	66.00	68.30	96.30
A-426	8	54.00	84.60	82.50	116.10

## DIMENSION IN INCHES

OUTLET SIZE	SIZE GRATE	SIZE TOP	BODY 1 PT.	DEPTH CAULK	HEIGHT COLLAR	APPROX. WEIGHT
2-3-4	11 1/4 Diam.	13 1/4 Sq.	5 1/4	6 1/2	2	45
5-6-8	13 1/4 Diam.	15 1/4 Sq.	5 1/4	6 1/2	2	65



## A430—Narrow Valley Roof Drains

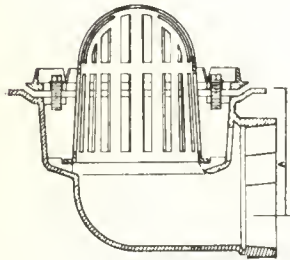
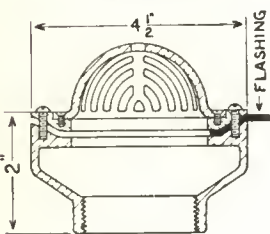
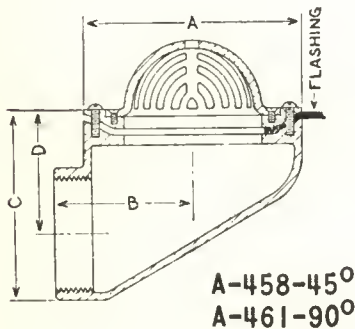


PLATE NUMBER	SIZE OUTLET	SIZE TOP	C. I. BLACK	C. I. GALV.	ALL BRASS	APPROXIMATE WEIGHT
A-432	2	8 1/2 x 8 1/2	\$13.50	\$19.80	\$36.00	15
A-433	3	8 1/2 x 8 1/2	13.50	19.80	36.00	15
A-434	4	8 1/2 x 8 1/2	13.50	19.80	36.00	15
Dome Strainer -			4.50	6.90	12.00	



## A436—Side Outlet N. V. Roof Drains

PLATE NUMBER	SIZE OUTLET	TOP TO C./I. OUTLET	DEPTH BODY	APPROXIMATE WEIGHT	C. I. BLACK	C. I. GALV.	ALL BRASS
A-437	2	4 1/2	7	19	\$20.00	\$27.00	\$56.00
A-438	3	4	7	19	20.00	27.00	56.00
A-439	4	3 1/2	7	19	20.00	27.00	56.00



## A449, A458, A461—Cornice Drains

## LIST PRICES

PLATE NUMBER	OUTLETS	OUTLET ANGLE	C. I. BODY P. B. TOP	GALV. BODY—P. B. TOP	ALL BRASS
A-449	2"	Bottom	\$ 7.60	\$10.20	\$13.20
A-452	3"	Bottom	9.30	12.30	14.90
A-455	4"	Bottom	12.60	17.50	19.00
A-458	2"	45°	10.50	13.30	14.00
A-459	3"	45°	14.00	18.90	22.75
A-460	4"	45°	17.50	25.20	28.00
A-461	2"	90°	10.50	13.30	14.00
A-462	3"	90°	14.00	18.90	22.75
A-463	4"	90°	17.50	25.20	28.00

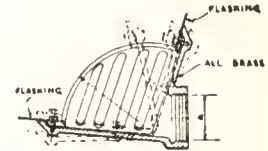
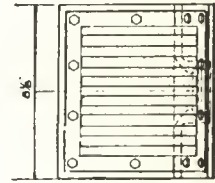
ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## ROOF DRAINS

## A465—All-Brass Cornice Drains

All brass cornice or roof drain, with barrel type strainer, made in various angles. Strainer securely clamps flashing. 96° angle furnished unless otherwise specified.

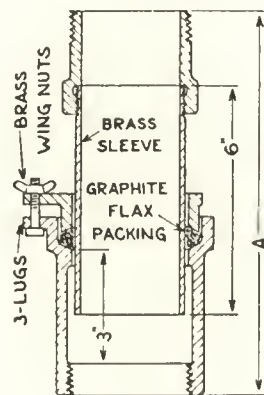
All brass, 2", 3" or 4" Outlets, List Price..... Each \$36.00



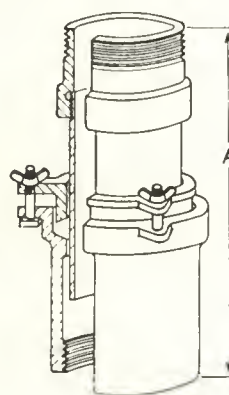
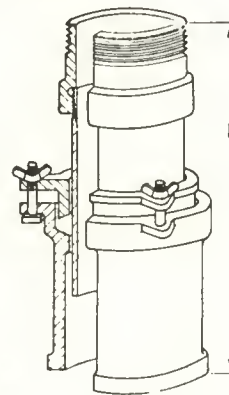
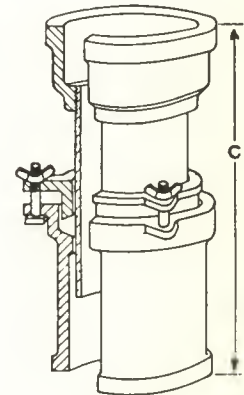
A-465

## A466—Drain-Line Expansion Joints

Cast iron body with extra heavy brass sleeve and graphited flax packing gland - 3 inch travel. Necessary on all drain lines of any great length to insure permanently tight joints.



Sectional View

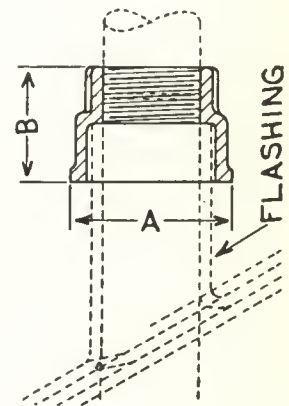
A-466  
ThreadedA-467  
Threaded Inlet, Hub and Spigot  
Spigot Outlet

A-468

SIZE	C. I.	GALV.	ALL BRASS	A	B	C
2"	\$12.00	\$16.20	\$26.40	12"	13"	14"
3"	15.00	20.70	33.60	12"	14 1/4"	15"
4"	18.00	25.20	38.40	12"	15 1/2"	15 3/4"
5"	21.00	29.70	52.80	12"	15 3/4"	16"
6"	24.00	34.20	62.40	12"	16 3/4"	16 1/2"
8"	34.50	50.40	100.80	12"	18"	17"

## A469—Counter Flashing for Vent Stacks

SIZE	BLACK	GALVANIZED	A	B
1 1/2	\$2.00	\$3.60	4"	3"
2	2.40	4.00	4"	3"
2 1/2	3.00	5.80	5"	3 1/2"
3	3.00	5.80	5"	3 1/2"
4	4.20	6.70	6"	3 1/2"
5	5.60	9.10	7"	4"
6	12.00	20.40	8"	4"
8	18.00	30.00	10 1/2"	4"



A-469

## BRASS STRAINERS

Strainers of wide variety of design are obtainable in all standard metals, finishes and plating. Stock carried brass, polished or chromium plated. Many patterns not illustrated but designs for practical needs may be had from our patterns.



Fig. A

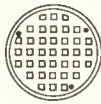


Fig. B

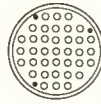


Fig. C



Fig. D



Fig. E

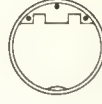


Fig. F

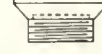
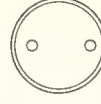


Fig. G



Fig. H



Fig. J



Fig. K

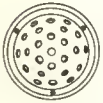


Fig. L

FIGURE—ROUND, POLISHED BRASS

	#10-4"	#13-5"	#14-6"	#15-7"	#16-8"	#18-10"
A - Regular slotted strainer.....	\$4.80	\$6.40	\$8.80	\$12.80	\$14.40	\$20.80
B - Square hole strainer.....	4.80	6.40	8.80	12.80	14.40	20.80
C - Round hole strainer .....	4.80	6.40	8.80	12.80	14.40	20.80
D - Feather edge for receptors.....	4.80	6.40	8.80	12.80	14.40	20.80
E - Hinged slotted strainer.....	8.00	9.60	12.00	16.00	17.60	24.00
F - Hinged solid top - inside strainer	-	12.80	16.40	22.40	-	-
G - Solid screw top - inside strainer	-	-	13.20	-	-	-
H - Concave strainer.....	On Application	-	-	-	-	-
J - Convex strainer .....	On Application	-	-	-	-	-
K - Dome strainer .....	6.40	8.60	11.80	-	-	-
L - Beehive strainer.....	On Application	-	-	-	-	-
V - Plug strainer.....	12.00	-	-	-	-	-
W - Overflow strainer.....	On Application	-	-	-	-	-
Chromium plating, add.....	1.60	2.10	2.60	3.70	4.80	8.00

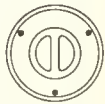


Fig. V

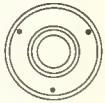


Fig. W



Fig. M

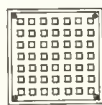


Fig. N

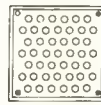


Fig. P

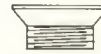
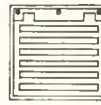


Fig. Q



Fig. R

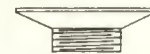


Fig. S

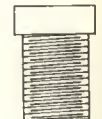


Fig. T

FIGURE—POLISHED BRASS

	#20-4 x 4	#21-5 x 5	#22-6 x 6	#23-7 x 7	#24-8 x 8	#25-9 x 9
M - Slotted square strainer.....	\$6.00	\$8.00	\$11.00	\$16.00	\$18.00	\$22.00
N - Square, hole, square strainer .....	6.00	8.00	11.00	16.00	18.00	22.00
P - Round hole, square strainer.....	6.00	8.00	11.00	16.00	18.00	22.00
Q - Hinged, slotted, square strainer .....	-	12.80	15.80	-	-	-
Chromium plating, add.....	2.00	2.60	3.20	4.80	6.00	8.00
R - Angle airflow strainer..... 3½ x 4½	- \$14.40	- CP \$4.80	- 6½x7	- \$28.80	CP - 9.60	
S - Rectangular strainer.....	4x8	5x9	5x17	-	Prices on application	
T - Extension piece, 3½" of thread.....	\$4.50	-	-	-	-	-

Strainers furnished in white metal at 50% additional list. Extra brass threaded section, add to list price 50¢ for each ½". Solid top strainers furnished with inside strainer grates.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## FLOOR DRAINS

## Series A300—Floor and Shower Drains

DATA GIVEN IS WITH TYPE "A" STRAINER  
SEE OPPOSITE PAGE FOR VARIATIONS

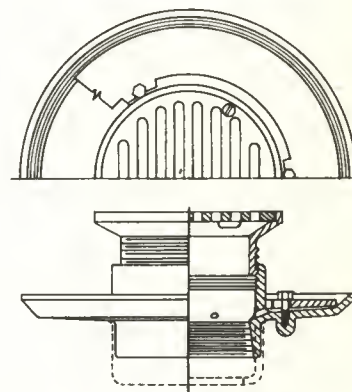


PLATE NUMBER	SIZE OUTLET	DIA. TOP	BLACK PB STR.	GALV. PB STR.	BRASS PB STR.	ADD TO PB TOP C.P.	ADD FOR W.M. SIDE OUTLET	ADJUSTMENT MIN.	ADJUSTMENT MAX.	APPROXIMATE WEIGHT	
A-302-4	2	4	\$ 9.70	\$13.50	\$18.40	\$1.60	\$2.40	\$2.00	2½	3½	7
A-302-5	2	5	11.30	15.30	20.00	2.10	3.20	2.00	2¾	3¾	9
A-302-6	2	6	13.50	17.70	22.40	2.60	4.40	2.00	2¾	3¾	9½
A-303-6	3	6	15.50	23.10	26.40	2.60	4.40	3.00	2¾	3¾	11
A-303-7	3	7	19.50	27.10	30.40	3.70	6.40	3.00	3½	4½	11½
A-303-8	3	8	21.10	28.70	32.00	4.80	7.20	3.00	3½	4½	12½
A-304-8	4	8	22.50	30.60	34.40	4.80	7.20	4.50	3½	4½	13
A-304-10	4	10	28.50	37.60	40.80	8.00	10.40	4.50	3½	4½	17

All caulk outlets are 'Inside Caulk'. All pipe threads are 'Female' Clamping furnished when specified only. For strainers, other than Type 'A' shown, consult strainer chart. A302-6 - 303-8 and 304-10 conform to Govt. Spec. Fig. 106 - WWP - 541a.

## Series A310—Combined Floor Drain and Trap

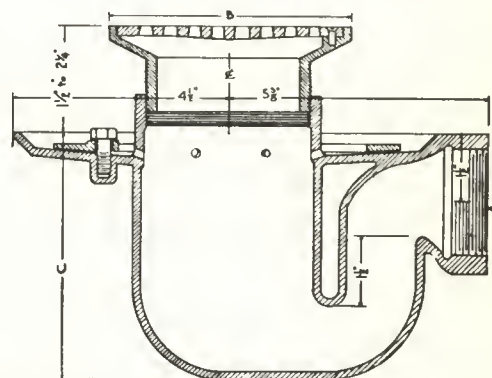


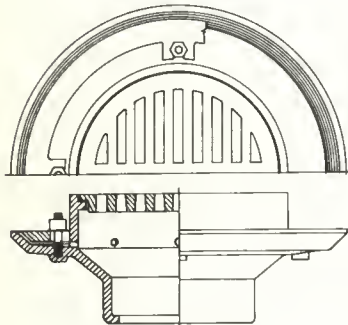
PLATE NUMBER	SIZE OUTLET	DIA. TOP	BLACK PB STR.	GALV. PB STR.	ALL BRASS PB STR.	ADD TO PB TOP C.P.	W.M.	DEPTH OVERALL	DEPTH SEAL	APPROXIMATE WEIGHT
DEEP PATTERN										
A-312	2	5	\$19.50	\$28.80	\$48.80	\$2.10	\$3.20	9-1/4	2-1/4	22
A-313	3	7	31.50	48.00	72.30	3.10	6.40	10-5/8	2-1/4	25
A-314	3	8	39.80	58.50	98.90	4.80	7.20	12-1/4	2-1/4	41
SHALLOW PATTERN										
A-3125	2	5	\$19.50	\$28.80	\$48.80	\$2.10	\$3.20	6-7/8	1-1/2	20
A-3135	3	7	31.50	48.00	72.30	3.10	6.40	9-1/8	2	32

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## FLOOR DRAINS

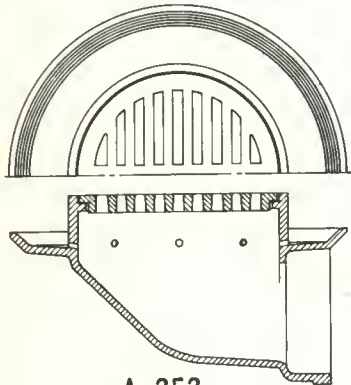
## A350—Standard Area or Floor Drain

NOT FOR HEAVY TRAFFIC



A-350

SIZE OUTLET	DIAMETER TOP	CAST IRON BLACK	GALV.	P. B. TOP	ALL BRASS	ADD TO P.B. FOR C.P. TOP	APPROXIMATE WEIGHT
2	8 $\frac{3}{4}$	\$10.50	\$18.30	\$20.30	\$41.60	\$4.80	20
3	8 $\frac{3}{4}$	10.50	18.30	20.30	41.60	4.80	20
4	8 $\frac{3}{4}$	10.50	18.30	20.30	41.60	4.80	20
Square Top		16.00	25.90	26.40	56.00	7.20	23
Clamp Ring		2.40	4.80		6.40		
4	12	19.50	35.00	36.00	83.20	9.60	35
5	12	19.50	35.00	36.00	83.20	9.60	35
6	12	19.50	35.00	83.20	83.20	9.60	35
Square Top		27.20	47.00	44.80	107.20	11.20	40
Clamp Ring, Add		3.20	4.80		8.00		



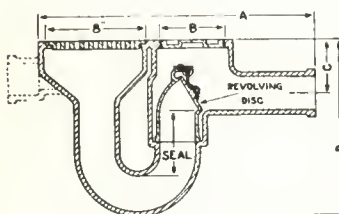
A-353

## A353—Side Outlet Standard Area Drain

NOT FOR HEAVY TRAFFIC

SIZE OUTLET	DIAMETER TOP	CAST IRON BLACK	GALV.	P.B. TOP	ALL BRASS	ADD TO P.B. FOR C.P. TOP	C/L OUTLET	DEPTH OVERALL
2	8 $\frac{3}{4}$	\$19.20	\$30.80	\$29.00	\$62.40	\$4.80	3-1/2"	5-1/2
3	8 $\frac{3}{4}$	19.20	30.80	29.00	62.40	4.80	3-3/4"	6-1/2
4	8 $\frac{3}{4}$	19.20	30.80	29.00	62.40	4.80	4-5/8"	7-5/8
Square Top		25.30	39.00	37.30	76.80	7.20		
Clamp Ring, Add		2.40	4.80		6.40			

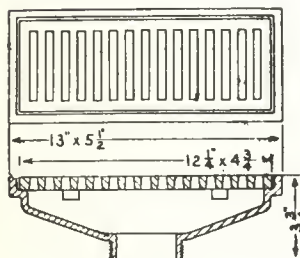
## A361—Combined Drain and Trap with Backwater



A-361

SIZE OUTLET	WITH BACKWATER VALVE BLACK	GALVANIZED	P.B. TOP	LESS B.W. DEDUCT	A	C	D
2	\$47.20	\$70.60	\$56.80	\$6.40	20 $\frac{3}{4}$	4 $\frac{1}{4}$	11
3	63.20	94.20	72.80	9.60	21 $\frac{3}{4}$	4	13 $\frac{3}{4}$
4	79.40	120.20	88.60	12.80	23 $\frac{3}{4}$	4 $\frac{1}{2}$	16

Approximate Weight - 2"-45# - 3"-57# - 4"-70#



A-332

## A332—Gutter Drain

SIZE OUTLET	SIZE TOP	CAST IRON BLACK	GALVANIZED	C.I.—P.B. TOP BLACK	GALVANIZED	ADD TO P.B. FOR C.P. TOP	APPROXIMATE WEIGHT
2"	5 $\frac{1}{2}$ x13	\$11.20	\$18.40	\$20.80	\$28.80	\$8.00	16
3"	5 $\frac{1}{2}$ x13	11.20	18.40	20.80	28.80	8.00	16
4"	5 $\frac{1}{2}$ x13	11.20	18.40	20.80	28.80	8.00	16

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## FLOOR DRAINS

## A370—Heavy-Duty Floor Drain

For Usage Where Subject to Heavy Trucking and to Intercept Coarse Debris.  
Clamping Ring Furnished on Specification Only. Made in Various Heights to  
Suit Special Floor Conditions.

SIZE OUTLET	DIAM. TOP	C	E	F I. P. T.	F CAULK	APPROXIMATE WEIGHT
2	12	16	1½	5½	7	42
3	12	16	1½	5½	7	42
4	12	16	1½	5½	7	42
4	15	19¼	1½	5½	7	70
5	15	19¼	1½	5½	7	70
6	15	19¼	1½	5½	7	70
8	15	19¼	1½	5½	7	76

With Brass or Square Top - Add - E + ½"

## LIST PRICES AND SPECIFICATIONS

DIAM TOP	SIZE OUTLET	BLACK	C. I. GALV.	P.B. TOP BLACK	P.B. TOP GALV.	ALL BRASS	ADD TO BRASS TOP FOR C.P.
12	2	\$19.40	\$34.00	\$35.90	\$52.00	\$ 88.00	\$9.60
12	3	19.40	34.00	35.90	52.00	88.00	9.60
12	4	19.40	34.00	35.90	52.00	88.00	9.60
Square Top		28.80	49.00	46.40	65.30	113.60	11.20
Clamp, Add		3.20	4.80			9.60	
Sec. Str, Add		2.40	3.80			4.80	
15	4	\$30.80	\$56.10	\$60.80	\$87.30	\$127.20	\$14.40
15	5	32.30	57.90	62.30	89.10	128.80	14.40
15	6	33.60	59.70	63.80	90.90	130.40	14.40
15	8	38.30	65.10	68.30	96.30	135.10	14.40
Sq. Top, Add		13.60	17.40	15.40	19.50	43.20	14.40
Clamp, Add		6.40	10.60	6.40	10.60	16.00	16.00
Sec. Str, Add		4.40	5.80	4.00	5.80	7.20	

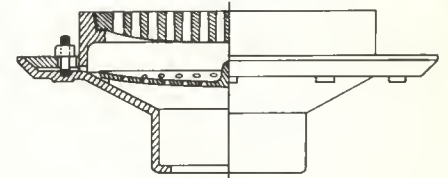
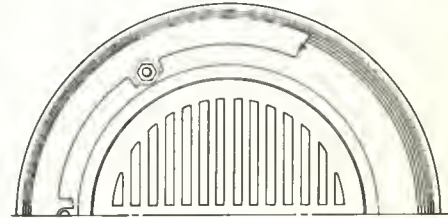
## A372—Side Outlet Heavy-Duty Drain

SIZE OUTLET	BLACK	CAST IRON GALV.	BLACK	P.B. TOP GALV.	ALL BRASS
2	\$25.00	\$42.50	\$45.00	\$65.00	\$110.00
3	25.00	42.50	45.00	65.00	110.00
4	25.00	42.50	45.00	65.00	110.00
5	40.00	72.50	78.00	112.00	160.00
6	41.50	75.00	80.00	115.00	163.00

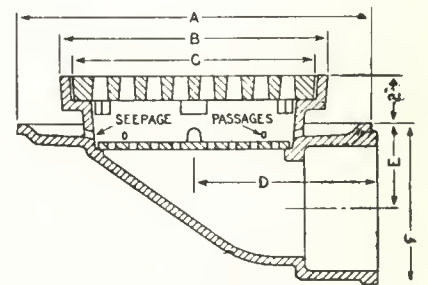
## A333—Gutter Drain

FINISHED WITH OR LESS SAFETY PAN

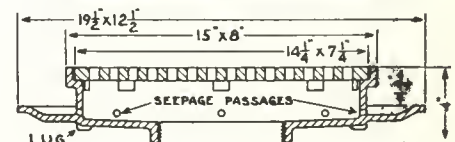
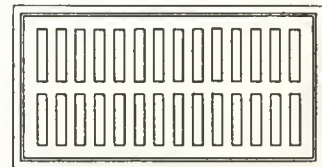
SIZE OUTLET	BLACK	CAST IRON GALV.	C.I.—P.B. TOP BLACK	P.B. TOP GALV.	ALL BRASS	ADD TO P.B. TOP FOR C.P.
4	\$28.80	\$48.00	\$46.10	\$66.40	\$101.80	\$10.20
5	28.80	48.00	46.10	66.40	101.80	10.20
6	28.80	48.00	46.10	66.40	101.80	10.20
DEDUCT IF SAFETY PAN IS NOT REQUIRED.						
	6.00	10.80	6.00	10.80	12.00	
GRATE	5.60	9.60	16.00	16.00	16.00	



A-370



A-372



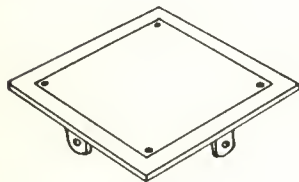
A-333

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## ACCESS COVERS AND FRAMES

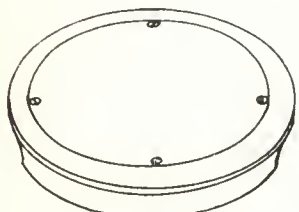
## A362—School Board Access Covers



A-362

OVERALL FRAME—INCHES	10 x 10	10 x 14	14 x 14
COVER SIZE—INCHES	8 x 8	8 x 12	12 x 12
Brass, Chrome Plate	\$10.40	\$14.75	\$23.55
Brass, Carborundum	10.46	14.75	23.55
Brass, Diamond Tread	10.40	14.75	23.55
Brass, Finished	9.70	11.85	17.75
Iron, Diamond Tread	8.80	11.00	11.85

## A351—Round Access Covers

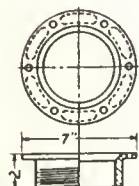


A-351

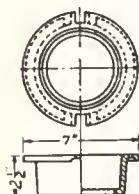
NOMINAL SIZE	2	3	4	5	6	8	10
OVERALL DIAMETER	4½	5½	6¾	8	9½	11½	14
Brass Chrome Plate	\$7.10	\$8.00	\$8.85	\$10.65	\$12.45	\$15.00	\$27.35
Brass Diamond Tread	5.35	6.30	7.10	8.80	10.65	13.30	18.40
Finished Brass	5.35	6.30	7.10	8.80	10.65	13.30	18.40
Iron Diamond Tread	4.60	5.50	6.00	7.60	8.50	11.35	15.35

## Water Closet Flanges—Government Pattern

These Flanges conform to U.S. Government Specifications WW-P-541, Fig. J01, E36, E36a.

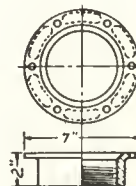


Type FC

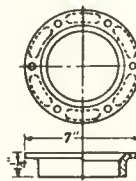


Type WC

Type FC, Cast Brass .....	Each	\$4.00
Type NC, Cast Brass .....	"	4.50
Type LP, Cast Brass .....	"	3.50
Type WC, Cast Brass .....	"	3.60
Type WC, Cast Iron .....	"	1.60
Asbestos Gaskets for any style.....	"	1.50
5/16" Bolts, 2½" long, N.P. Brass, with nuts and washers.....	Pair	.85



Type NC



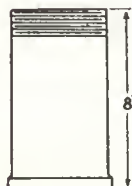
Type LP



A-317



A-318



A-319

## Soil Pipe Adaptors

NOS. A317 A318 - A319	BLACK	CAST IRON GALVANIZED	BRASS	APPROXIMATE WEIGHT
2"	\$2.10	\$3.50	\$5.60	2½
3"	3.20	5.50	8.40	4½
4"	4.80	8.30	12.60	5½
5"	5.80	10.20	15.40	8
6"	7.40	12.80	19.60	10
8"	10.00	18.00	24.00	14½

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## AREA FLOOR DRAINS

### A363—Combined Floor Drain and Trap

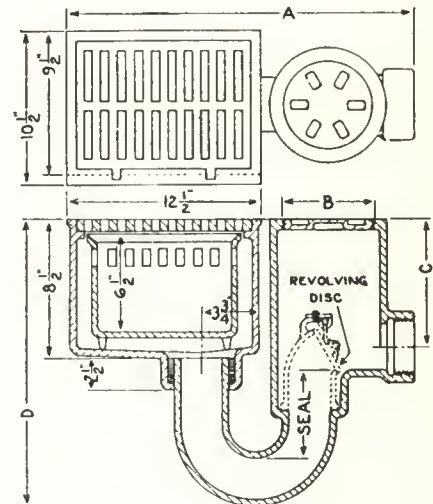
EXTRA HEAVY HINGED GRATE

Removable Sediment Bucket—Brass Cleanout. With or Without Backwater Valve.

SIZE OUTLET	BLACK	C. I. GALV.	C. I.—P. B. BLACK	TOP GALV.	LESS B. W. DEDUCT	APPROXIMATE WEIGHT
2	\$58.10	\$95.30	\$77.20	\$115.30	\$6.40	82
3	62.40	101.90	81.60	121.90	9.60	90
4	71.10	115.50	90.30	135.60	12.80	102

DIMENSION IN INCHES						
SIZE OUTLET	SIZE TOP	A	B	C	D	DEPTH SEAL
2	10½x12½	20	4½	7¼	14½	4
3	10½x12½	21	5½	7	17	5
4	10½x12½	22	6½	6¾	18	5

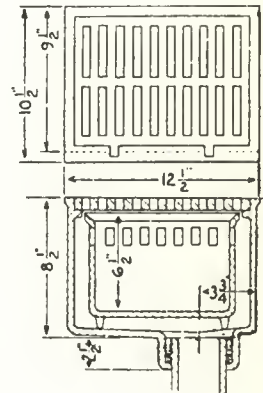


A-360

### A364—Floor Drain with Sand Bucket

EXTRA HEAVY HINGED GRATE

SIZE OUTLETS	BLACK	C. I. GALV.	C. I.—P. B. BLACK	TOP GALV.	APPROXIMATE WEIGHT
2	\$36.00	\$60.50	\$55.20	\$80.70	57
3	36.00	60.50	55.20	80.70	57
4	36.00	60.50	55.20	80.70	57
Side Outlet, Add	9.00	10.90			
5	42.00	67.70	61.20	87.80	57
6	42.00	67.70	61.20	87.80	57
Side Outlet, Add	9.60				
Bucket Only	8.80	14.40			
Safety Pan, Add	12.00	18.00			
Clamping Ring, Add	4.00	6.00			
Grate Only	6.40	10.60	19.20		

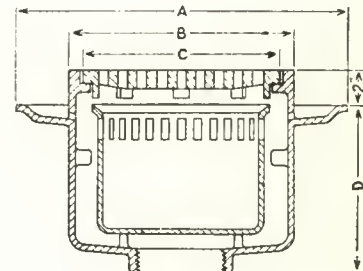


A-364

### A360—Floor Drain with Safety Pan

HEAVY GRATE—REMOVABLE BUCKET

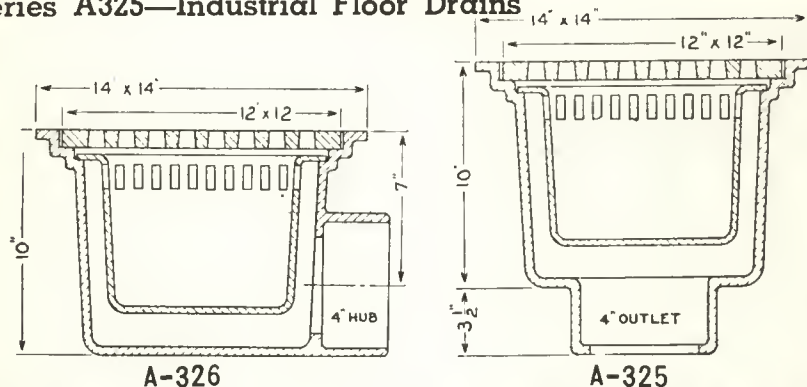
SIZE OUTLET	DIAM. TOP	DEPTH	BLACK	C. I. GALV.	C. I.—P. B. BLACK	TOP GALV.	APPROX. WEIGHT
2	11	10	\$39.00	\$65.70	\$55.50	\$83.70	60
3	11	10	39.00	65.70	55.50	83.70	60
4	11	10	39.00	65.70	55.50	83.70	60
CR Add			3.20	4.80			
4	15	14	76.80	129.00	106.80	159.60	130
5	15	14	76.80	129.00	106.80	159.60	130
6	15	14	76.80	129.00	106.80	159.60	130
CR Add			6.40	10.60			



A-363

## INDUSTRIAL FLOOR DRAINS

## Series A325—Industrial Floor Drains



HEAVY PATTERN WITH SEDIMENT BUCKET

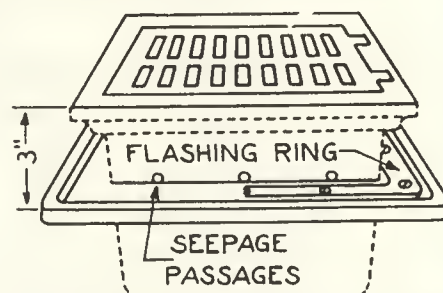
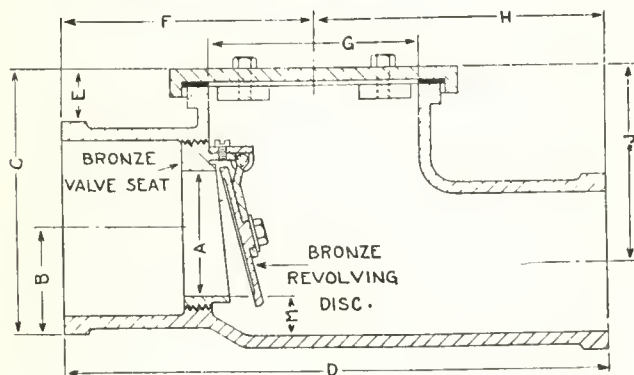


Illustration shows how Drains may be Modified

PLATE NUMBER	OUTLET SIZES	C. I.		GRATE ONLY		BUCKET ONLY		SEEPAGE PAN		CLAMP RING	
		BLACK	GALV.	BLACK	GALV.	BLACK	GALV.	BLACK	GALV.	BLACK	GALV.
A-325	2-3-4	\$32.20	\$52.00	\$4.15	\$6.60	\$13.00	\$16.75	\$6.40	\$9.50	\$4.80	\$7.15
A-326	2-3-4	35.00	57.75								

Prices listed are with Loose Grate.

Approx. Weight - 85#

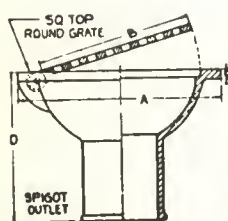


A-330

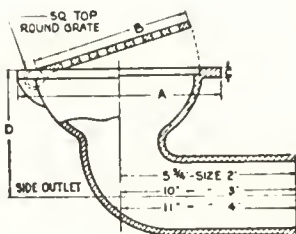
## A330—Backwater Valves

SIZE	LIST PRICE	APPROXIMATE WEIGHT
2	\$15.25	19
3	19.10	29
4	27.00	34
5	40.00	50
6	46.00	65
8	77.50	120

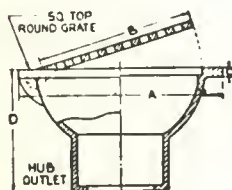
Heavy C.I. Body with Bolted Cover. Bronze Bearings, Free Revolving Disc and Bronze Seat.



A-305



A-306



A-307

## Area Cesspools

PLATE NUMBER	OUTLET	SIZE TOP	BLACK		BRASS P. B. TOP	
			BLACK	GALV.	BLACK	C. P. TOP
A-305	2	6x6	\$2.50	\$3.75	\$7.90	\$11.10
A-305	3	9x9	5.30	9.00	14.70	19.50
A-305	4	12x12	10.50	14.75	28.20	34.60
A-306	2	6x6	\$6.00	\$9.00	\$12.00	\$15.20
A-306	3	9x9	12.00	18.00	22.80	27.60
A-306	4	12x12	18.00	30.00	40.00	50.60
A-307	2	6x6	\$2.50	\$3.75	\$7.90	\$11.10
A-307	3	9x9	5.30	9.00	14.70	19.50
A-307	4	12x12	10.50	14.75	28.20	34.60

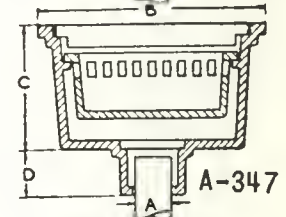
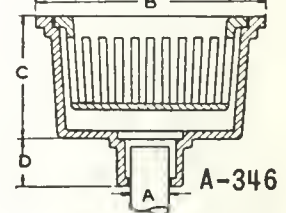
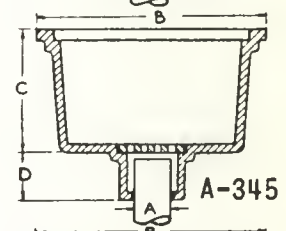
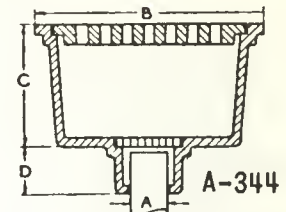
ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## FLOOR DRAINS

### Government-Type Cesspool Floor Drains

PLATE NUMBER	SIZE & DEPTH	OUTLET SIZES	BLACK	C. I. GALVANIZED	GRATE ONLY	BASKET ONLY
A-344	12x12x6	2-3-4	\$12.75	\$18.90	\$3.25	
A-344	12x12x10	2-3-4	18.15	25.20	3.25	
A-344	14x14x6	2 to 6	19.75	27.00	5.40	
A-344	14x14x10	2 to 6	26.00	35.50	5.40	
A-344	16x16x6	4-5-6	27.25	37.00		
A-344	16x16x10	4-5-6	36.00	47.50		
A-345	8x 8x10	2	10.00	13.00		
A-345	12x12x6	2 to 4	10.00	14.60		
A-345	12x12x10	2 to 4	15.40	21.40		
A-345	14x14x6	2 to 6	14.50	20.50		
A-345	14x14x10	2 to 6	20.50	29.25		
A-345	16x16x6	4 to 6	20.50	29.25		
A-345	16x16x10	4 to 6	29.25	48.50		
A-346	12x12x6	2 to 4	19.60	25.00		\$ 8.25
A-346	14x14x6	4 to 6	25.50	32.00		11.40
A-346	16x16x6	4 to 6	35.00	42.50		14.25
A-347	12x12x6	2 to 4	20.50	27.00	3.25	7.85
A-347	14x14x6	4 to 6	30.50	37.75	5.40	10.70
A-347	16x16x6	4 to 6	38.50	48.75	6.60	12.80



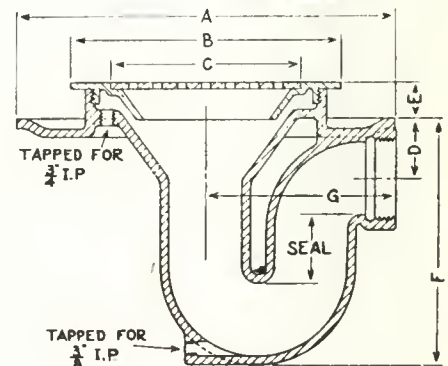
### A365—Hospital-Type Combined Floor Drain and Trap

CAST IRON BODY, WHITE ENAMEL INTERIOR—CAST BRASS TOP  
WITH HINGED STRAINER

SIZE OUTLET	C. I. BODY P. B. TOP		C. I. BODY C. P. BRASS TOP		APPROXIMATE WEIGHT
	BLACK	GALVANIZED	BLACK	GALVANIZED	
2	\$60.00	\$84.50	\$71.20	\$95.70	50
3	60.00	84.50	71.20	95.70	50

#### DIMENSIONS IN INCHES

OUTLET	A	B	C	D	E	F	G	SEAL
2	13 $\frac{3}{4}$	10	7 $\frac{1}{4}$	2 $\frac{3}{4}$	1 $\frac{1}{2}$	10	7 $\frac{1}{4}$	2 $\frac{1}{2}$
3	13 $\frac{3}{4}$	10	7 $\frac{1}{4}$	2 $\frac{3}{4}$	1 $\frac{1}{2}$	10	7 $\frac{1}{4}$	2 $\frac{1}{2}$



A-365

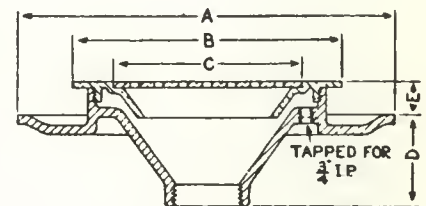
### A366—Hospital-Type Floor Drain, without Trap

CAST IRON BODY, WHITE ENAMELED INTERIOR—CAST BRASS TOP  
WITH HINGED STRAINER

SIZE OUTLET	C. I. BODY P. B. TOP		C. I. BODY C. P. BRASS TOP		APPROXIMATE WEIGHT
	BLACK	GALVANIZED	BLACK	GALVANIZED	
2	\$48.00	\$66.30	\$59.20	\$77.50	25
3	48.00	66.30	59.20	77.50	25
4	48.00	66.30	59.20	77.50	25

#### DIMENSIONS IN INCHES

OUTLET	A	B	C	D	E
2-3-4	13 $\frac{3}{4}$	10	7 $\frac{1}{4}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$



A-366

## WASTES AND OVERFLOWS



A-474

LONG PATTERN 3" OF THREAD  
A-474 - With overflow plug  
A-475 - With metal stopper



A-476

SHORT PATTERN, 1½" OF THREAD  
A-476 - With overflow plug  
A-477 - With metal stopper



OPEN TOP

A-478 - Brass  
A-479 - Lead



BEEHIVE TOP

A-480 - Brass  
A-481 - Lead

## FOR TANKS, SINKS, ETC., MADE OF CAST BRASS

Furnished complete with lock-nut and with either overflow plug or metal stopper.

Long pattern is used for wood tanks, short pattern for cast iron or sheet metal sinks.

Water line in tank or sink can be regulated to any height by cutting pipe nipple in overflow plug to the required length.

NUMBER	THREADED I. P. SIZE INCHES	1½	2	3
A-474	Long Pattern Each	\$5.85	\$7.80	\$29.20
A-475	Long Pattern Each	5.85	7.80	29.20
A-476	Short Pattern Each	4.85	6.80	—
A-477	Short Pattern Each	4.85	6.80	—

Furnished with feather edge if required.

Can be supplied with polished brass, or chromium finish.

## Wastes with Standing Overflow

## CAST BRASS OR HARD LEAD

Wastes made of hard lead and antimony mixture for acid work to fit vitreous or wood sinks used in chemical laboratories, engraving, printing, and blueprint work.

Supplied with mercury arresting ring if desired.

Lead stoppers may be furnished instead of overflow top.

Extension pieces of any length can be supplied with female iron pipe thread one end, and spigot to caulk into trap or hub of pipe on other end.

	A478	A479	A480	A481
1½" I.P. Thread Each	\$11.70	\$17.50	\$15.50	\$23.25
2" I.P. Thread Each	15.50	23.25	21.20	31.00

Brass Wastes can be supplied with polished brass, or chromium finish. Furnished with feather edge if required.

Standard height of overflow to water line 5"; other sizes made to order.



## SPECIAL DRAINS

### Urinal Strainers

HEAVY CAST BRASS—POLISHED OR CHROME PLATED  
4½" Diameter – Removable Strainer.

DESCRIPTION	POLISHED BRASS	CHROMIUM PLATED
A-393 – "All Purpose" Urinal Strainer; heavy nickel-plated cast brass; 4½" diameter. Flat removal strainer; for 2" lead pipe, 2" 1 P., or to caulk 2" soil pipe.....Each	\$3.00	\$4.35
A-394 – Dome strainer 5" diameter, outlet for 2" or 3" female threaded or inside caulk outlet for use with tile gutter.....Each	8.60	11.30

DESCRIPTION	POLISHED BRASS	CHROMIUM PLATED
A-395 – Strainer, with long bottom for 2" Soil Pipe Each	\$5.75	\$7.00
for inside caulking ..... for 3" Soil Pipe Each	7.00	8.25
A-396 – Strainer, threaded for 2" pipe.....Each	4.60	5.85
iron pipe..... for 3" pipe.....Each	5.00	6.85
A-399 – Strainer, with 6" long spigot at bottom for outside for 2" pipe.....Each	5.50	6.50
caulking. (Not shown)..... for 3" pipe.....Each	5.75	7.00

DESCRIPTION	POLISHED BRASS	CHROMIUM PLATED
A-397 – Adjustable Strainer with Locknut, Los Angeles Pattern, to caulk in to soil pipe..... for 3" pipe.....Each	\$7.00	\$8.25
A-398 – Adjustable Strainer with Locknut, Threaded Female Coupling for 2" pipe.....Each	7.75	8.75
for Iron Pipe..... for 3" pipe ..... Each	8.75	10.50
All Strainers shown above can be furnished with Beehive Top at additional cost of .....	1.10	2.25
All Strainers shown above can be furnished with Porcelain Top No. 49 at additional cost of .....	3.50	

A-393  
"All Purpose"  
Strainer



A-394  
Dome  
Strainer



A-395  
For Inside  
Caulking



A-396  
Threaded  
For  
Iron Pipe



A-397  
Adjustable  
For  
Soil Pipe  
Los Angeles  
Pattern



A-398  
Adjustable  
With  
Threaded  
Female  
Coupling  
For  
Iron Pipe

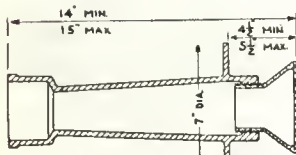




## SWIMMING POOL DRAINS AND FITTINGS

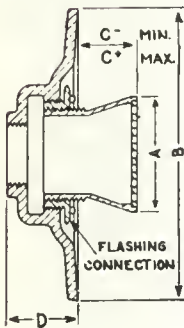
## A367—Inlet and Outlet (Circulating) Fittings

FURNISHED HUB OR FEMALE THREADED CONNECTION



A-376

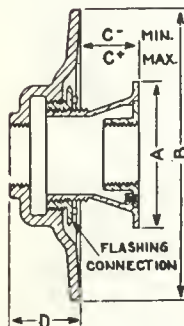
SIZE CONNECTION	SIZE STRAINER	C. I. BLACK P. B. STR.	C. I. GALVANIZED P. B. STR.	ALL BRASS	ADD CHROME PLATE
2	4x4	\$19.20	\$25.00	\$28.80	\$2.40
2	5x5	22.40	28.80	32.00	2.60
3	5x5	22.40	28.80	32.00	2.60
2	3x9	28.90	35.30	38.50	3.20
3	3x9	28.90	35.30	38.50	3.20
3	6x6	23.40	31.80	35.00	3.20
4	6x6	25.00	38.00	43.00	3.20



A-368

## A368—Inlet and Outlet (Circulating) Fittings

SIZE CONNECTION	SIZE STRAINER	C. I. BLACK P. B. STR.	C. I. GALVANIZED P. B. STR.	ALL BRASS P. B. STR.	ADD CHROME PLATE
1½	4x4	\$12.50	\$17.40	\$23.60	\$1.60
2	4x4	12.50	17.40	23.60	1.60
2½	5x5	14.40	19.50	26.20	2.10
3	6x6	19.20	28.00	32.60	2.60
Less C/R Deduct		1.50	2.70	4.00	



A-369

## A369—Vacuum Inlets

SIZE INLET	C. I. BODY P. B. STR.	C. I. GALVANIZED P. B. STR.	ALL BRASS	ADD CHROME PLATE
1½	\$16.80	\$23.00	\$24.00	\$2.10
2	16.80	23.00	24.00	2.10
2½	18.40	25.90	26.40	2.10
3	18.40	25.90	26.40	2.10
4	20.00	28.80	28.80	2.17
Inlet Plug, Add		1.60	1.60	1.30
Less C/R - De duct		2.70	2.70	

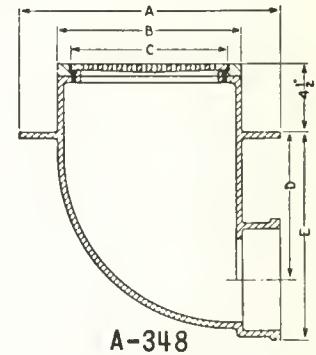
ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## SWIMMING POOL DRAINS AND FITTINGS

### A348—Main Pool Outlet Drain with Removable Strainer

MANUFACTURED IN TWO TOP SIZES 15½x6½ AND 12x12  
SPECIFY IF OUTLET IS FOR SOIL OR PRESSURE PIPE.

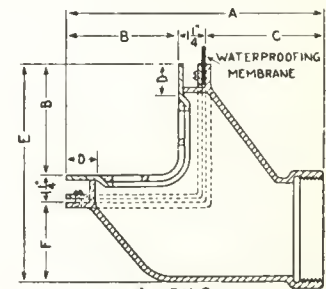
SIZE OUTLET	SIZE TOP	ALTERNATE TOP SIZE	C. I. BODY P. B. TOP	C. I. GALV.	C. I. GALV. P. B. TOP	ADD FOR C. P. TOP	
4-5-6	15½x6½	12x12	\$82.60	\$102.60	\$124.80	\$14.00	
SIZE OUTLET	SIZE TOP	ALTERNATE TOP SIZE	DIMENSIONS IN INCHES				
			A	B	C	D	E
4	15½x6½	12x12	20	6½	5¾	10¼	13¾
5	15½x6½	12x12	20	6½	5¾	9¾	13¾
6	15½x6½	12x12	20	6½	5¾	9¼	13¾



A-348

### A349—Angle Pattern Reversible, Main Pool Outlet Drain

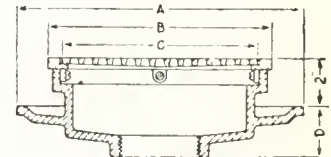
SIZE OUTLET	GRATE SURFACE	BLACK	C. I. GALVANIZED	C. I. BLACK P. B. TOP	C. I. GALV. P. B. TOP	ADD FOR C. P. GRATE	
2-3-4	5x8	\$27.00	\$36.30	\$39.80	\$51.70	\$10.20	
4-5-6	9x10½	55.20	77.60	72.00	96.80	15.40	
SIZE OUTLET	GRATE SURFACE	DIMENSIONS IN INCHES					
		A	B	C	D	E	F
2-3-4	5x8	8¾	5	2½	1	8¾	2
4-5-6	9x10½	16¾	7	8½	1¾	13¾	5



A-349

### A429—Main Pool Outlet Drain, Square Top, Round Slotted Grate

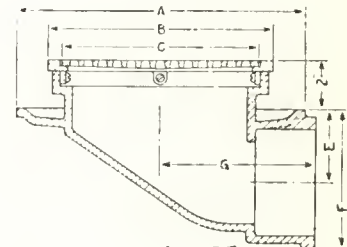
SIZE OUTLET	SIZE TOP	BLACK	C. I. GALV.	C. I. BODY BLACK	P. B. TOP GALV.	ALL BRASS	ADD FOR C. P. TOP
3-4	10x10	\$18.40	\$30.80	\$26.40	\$36.80	\$52.50	\$7.20
C/R Add		2.40	3.80	2.40	3.80	4.80	
5-6	12½x12½	28.80	49.00	46.40	65.30	112.50	11.20
C/R Add		3.20	4.80	3.20	4.80	9.60	



A-429

### A435—Main Pool Outlet Drain, Square Top, Side Outlet

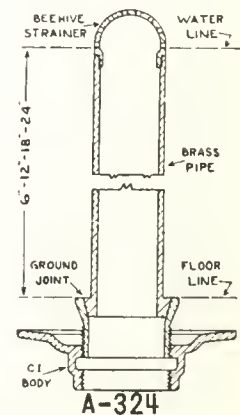
SIZE OUTLET	SIZE TOP	BLACK	C. I. GALV.	C. I. BODY BLACK	P. B. TOP GALV.	ALL BRASS	ADD FOR C. P. TOP	
3-4	10x10	\$25.30	\$39.00	\$37.30	\$51.00	\$76.80	\$7.20	
C/R Add		2.40	3.80	2.40	3.80	4.80		
5-6	12½x12½	33.00	55.00	53.00	74.60	135.60	11.20	
C/R Add		3.20	4.80	3.20	4.80	9.60		
SIZE OUTLET	SIZE TOP	DIMENSIONS IN INCHES						
		A	B	C	D	E	F	G
3	10x10	14	10	8	3	2¾	5½	7½
4	10x10	14	10	8	3	3¼	6½	7¾
5	12½x12½	16½	12½	11	3¾	4¾	8½	9
6	12½x12½	16½	12½	11	3¾	4¾	8½	9



A-435

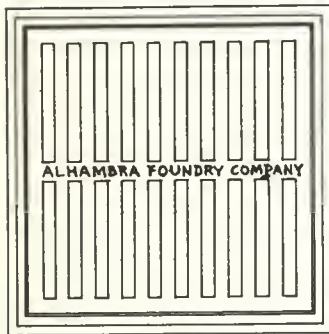
### A324—Standing Waste and Overflow BEEHIVE OR HOODED TOP

SIZE OUTLET	NORMAL STAND	C. I. BODY BLACK	P. B. STAND GALV.	ALL BRASS	ADD FOR CHROME PLATE
2	6	\$40.80	\$44.00	\$48.80	\$12.50
Add-1" of Stand		1.40	1.40	1.40	.50
3	6	50.40	55.00	60.80	14.90
		2.00	2.00	2.00	2.00
C/R Add		1.50	2.70	3.80	



A-324

## BRASS GRATES AND FRAMES



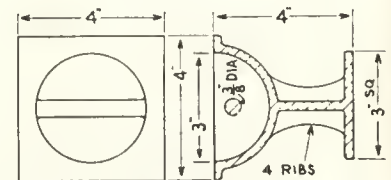
A-356

SIZE GRATE	SIZE FRAME	HEIGHT FRAME	APPROXIMATE WEIGHT	POLISHED	CHROME PLATED
6x6	7x7	3/4	6	4.80	7.00
8x8	9x9	3/4	10	8.00	11.00
10x10	11x11	3/4	14	11.20	15.00
12x12	13x13	3/4	18	15.00	20.00

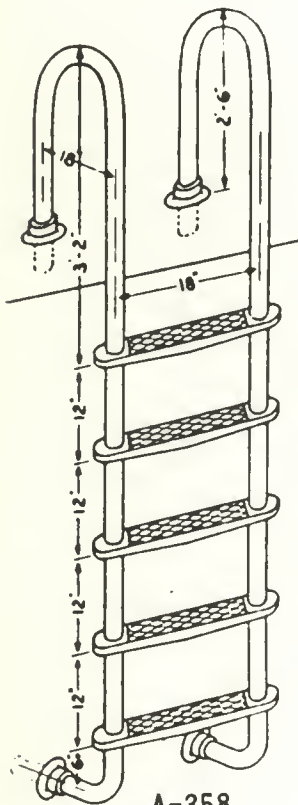
### A357—Brass Pool Lane Marker Fitting

Polished \$13.60

Chrome Plate \$18.70



A-357



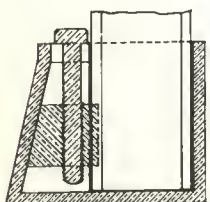
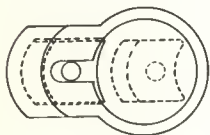
A-358

### A358—Swimming Pool Step Ladders

ALL RAILS 1 1/2" IPS PIPE—20" C.C. RAILS

NUMBER OF STEPS	STEEL & C. I. GALVANIZED	BRASS POLISHED	BRASS CHROME PLATED
3	\$87.59	\$165.00	\$205.00
4	100.00	180.00	226.00
5	112.50	200.00	250.00

Special Designs made to order.



A-359

### A359—Brass Wedge-Type Floor Sockets

FOR SECURING PIPE STANCHIONS

For 1 1/2" Pipe

Pol. Top \$10.50

C.P. Top \$13.60

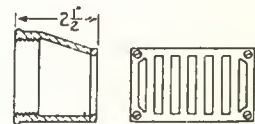
ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## SWIMMING POOL DRAINS

## A379—Scum Gutter Drains

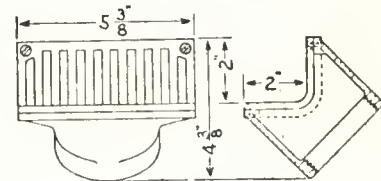
SIZE OUTLET	SIZE TOP	C. I. BODY P. B. TOP	C. I. GALV. P. B. TOP	ALL BRASS	ADD FOR C. P. TOP
1½-2	2¼x3¾	\$6.20	\$6.70	\$7.20	\$1.60
2½-3	2½x5-3/8	10.20	10.70	11.20	2.10



A-379

## A380—Angle Pattern Gutter Drain

SIZE OUTLET	SIZE TOP	C. I. BODY P. B. TOP	C. I. GALV. P. B. TOP	ALL BRASS	ADD FOR C. P. TOP
1½-2-2½	2x2x5-3/8	\$9.40	\$9.90	\$10.40	\$4.20

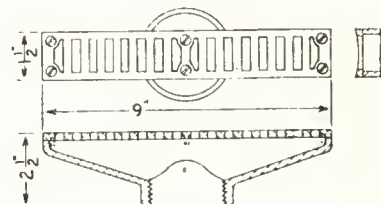


A-380

## A381—Scum Gutter Drain

## CONCAVE OR FLAT STRAINER

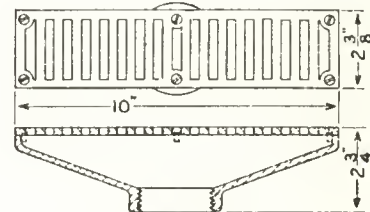
SIZE OUTLET	SIZE STRAINER	C. I. BODY P. B. STR.	GALV. BODY P. B. STR.	ALL BRASS	ADD FOR C. P. TOP
1½-2	1½x9	\$10.20	\$10.70	\$11.20	\$4.20



A-381

## A382—Gutter Drain

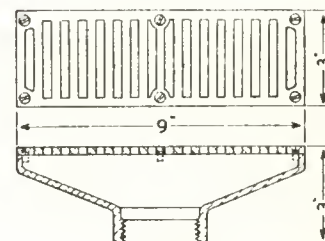
SIZE OUTLET	SIZE STRAINER	C. I. BODY P. B. STR.	GALV. BODY P. B. STR.	ALL BRASS	ADD FOR C. P. TOP
1½-2-2½	2-3/8x10	\$12.40	\$13.00	\$13.60	\$2.60



A-382

## A383—Gutter Drain

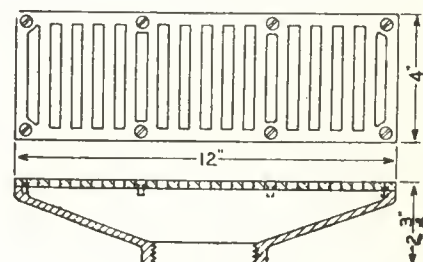
SIZE OUTLET	SIZE STRAINER	C. I. BODY P. B. TOP	GALV. BODY P. B. TOP	ALL BRASS	ADD FOR C. P. TOP
1½-2-2½	2-3/8x9	\$12.40	\$12.40	\$12.80	\$2.60



A-383

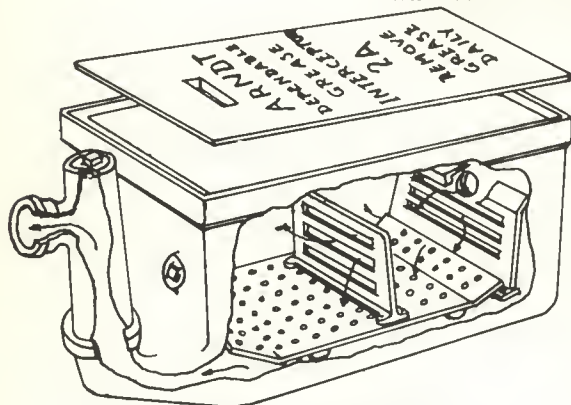
## A384—Gutter Drain

SIZE OUTLET	SIZE TOP	C. I. BODY P. B. TOP	GALV. BODY P. B. TOP	ALL BRASS	ADD FOR C. P. TOP
2-2½-3	4x12	\$12.00	\$17.30	\$24.00	\$3.60



A-384

## ARNDT GREASE INTERCEPTORS



Arndt Grease Interceptor

Cast Iron, white painted enameled, non-water jacketed machines for the separation and retention of grease and fats. Made to conform with City of Los Angeles and other ordinances. Will remove practically all grease from waste water, preventing pipe stoppage. Trap has double wall. Has incorporated all latest developments.

FLOW  
CONTROL

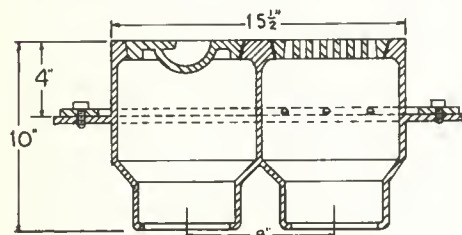
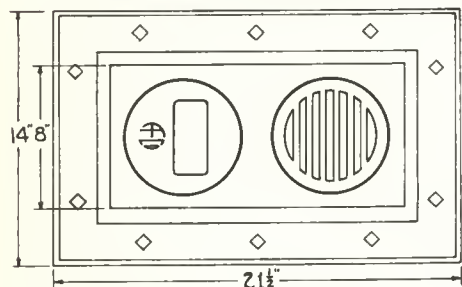
LIST PRICES—FLOW RATES AND EFFICIENCY FIGURES

INTERCEPTOR NUMBER	FLOW G P M	GREASE CAPACITY	FLOW REGULATOR	EFFICIENCY*	CITY LOS ANGELES UNIFORM CODE	LIST PRICE
1A	14	28 Lbs.	1½x7/8x2	94%	1 Fixture	\$108.50
2A	20	40 "	1½x1 x2	90%	2 "	124.50
3A	25	50 "	1½x1¼ x2	96%	3 "	184.50
4A	40	80 "	2 x1½ x4	95%	4 "	291.50

\*Laboratory Test Report. Smith Emery Co. — Los Angeles, California

INTERCEPTOR NUMBER	LENGTH OVERALL	LENGTH BODY	WIDTH	HEIGHT	SIZE INLETS	HEIGHT INLETS	SIZE OUTLETS	HEIGHT OUTLETS	APPROXIMATE WEIGHT
1A	24	18½	13	14½	2	6	2	10½	165
2A	28	22½	17½	16	2	7½	2½	12¾	200
3A	30	23½	19	19	2	8½	3	15	265
4A	36	29½	22	22	4	9½	4	16½	500

## A334—PACKING HOUSE KILLING FLOOR DRAIN COMBINATION



A-334

4" Outlets .....	\$116.00
6" Outlets .....	118.50
6" Water, 4" Blood .....	122.00

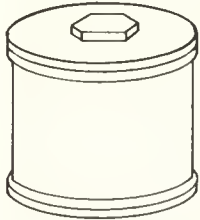
Cast Iron Body, Brass, Removable, Ground Joint Plug and Strainer.

Weep Holes on Water Side Only.

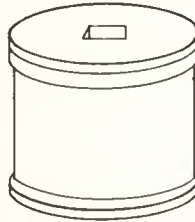
ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## CLEANOUT FERRULES



A-385 - WITH RAISED HEAD



A-386 - WITH COUNTER SUNK HEAD



A-387 - WITH STRAINER

SIZE FERRULE	ROUGH COVER	POLISHED COVER	C. P. COVER
2	\$5.00	\$5.30	\$6.00
3	7.00	7.50	9.00
4	9.00	9.50	11.50
6	10.50	12.00	15.00

### A386-B—Special Cleanout; Heavy Brass Bolted Cover C. I. BODY

SIZE FERRULE				
6" - \$10.70	8" - \$16.00	10" - \$24.50	12" - \$43.00	

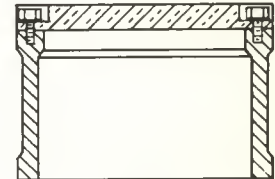
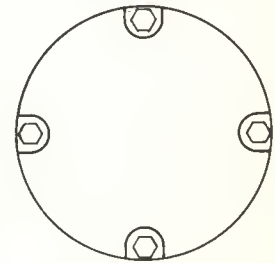
### A388—Extra Long Brass Cleanouts

COVER FLANGED—COUNTERSUNK OR RAISED HEAD  
BODY 5 INCHES LONG

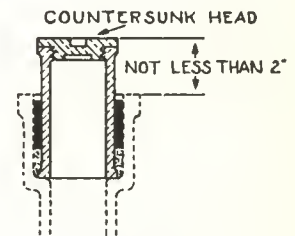
SIZE FERRULE	PLAIN COVER	POLISHED COVER	C. P. COVER
2	\$5.00	\$5.30	\$6.00
3	7.00	7.50	9.00
4	9.00	9.50	11.50
5	11.00	12.00	14.75
6	12.75	14.50	17.00
8	31.00	33.00	40.00
10	48.00	54.50	65.00
12	62.50	70.00	82.50

### A389—Brass Cleanout, Wall Plate and Screw

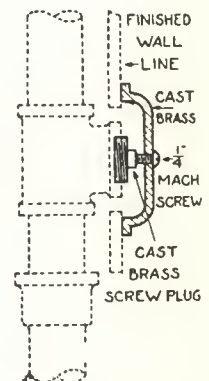
SIZE	POLISHED PLATE	C. P. PLATE	PLUG ONLY
1½	\$5.30	\$6.10	\$ .70
2	5.90	7.20	1.00
2½	6.50	8.25	1.75
3	8.00	10.10	2.40
4	12.20	14.70	4.50
5	17.60	21.40	7.70
6	20.30	24.30	12.50
8			19.20
10			28.80



A-386-B



A-388

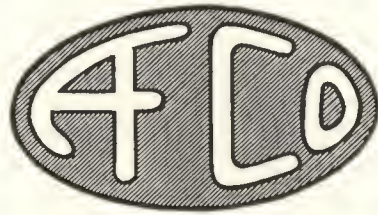


A-389





ALHAMBRA FOUNDRY PRODUCTS BEAR THIS MARK



ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

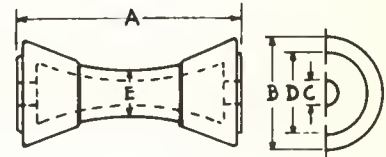


## PIPE ROLLERS

### A602—Type "A" Pipe Rollers

SUPPORTING PIPE FROM BENEATH

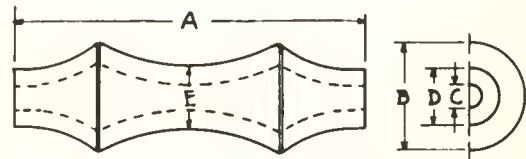
PIPE SIZES	A	B	C CORE	D	E	LIST PRICE
2-3½	2¾	1-3/4	9/16	1-1/8	1-1/8	\$ .60
4-6	3¾	2-1/16	9/16	1-1/4	1-1/8	.72
8-10	6	3-1/4	7/8	1-3/4	1-13/16	1.35
12-14	8	4	1	2	2	2.70
16-20	9	4-1/2	1-1/4	2-1/2	2-3/8	3.40
24	10	4-3/8	1-1/2	2-1/2	2-5/8	6.30



A-602

### LIST PRICES — A623 — TYPE "B" PIPE ROLLERS

SIZE ROLLER	LIST PRICE	SIZE ROLLER	LIST PRICE	SIZE ROLLER	LIST PRICE	SIZE ROLLER	LIST PRICE
1	\$ .26	3	\$ .48	8	\$ 1.25	18	\$ 7.50
1¼	.27	3½	.86	10	1.30	20	9.00
1½	.34	4	.90	12	2.00	24	15.00
2	.36	5	1.16	14	4.00		
2½	.38	6	1.20	16	5.20		



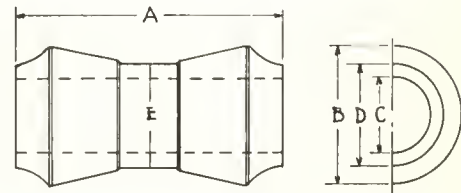
A-623

PIPE SIZES	A	B	C CORE	D	E	PIPE SIZES	A	B	C CORE	D	E
1	1-1/2	1	7/16	3/4	3/4	6	6-7/8	2-5/16	7/8	1-1/4	1-1/4
1¼	1-7/8	1-1/16	7/16	3/4	3/4	8	8-7/8	2-13/16	1	1-1/2	1-1/2
1½	2-1/8	1-1/8	7/16	3/4	3/4	10	11	3-3/8	1	1-3/4	1-3/4
2	2-5/8	1-3/16	7/16	3/4	3/4	12	13	3-7/8	1-1/8	2	2
2½	3-1/8	1-3/8	1/2	7/8	7/8	14	14-1/4	4-5/8	1-1/4	2-1/2	2-1/2
3	3-3/4	1-7/16	1/2	7/8	7/8	16	16-1/4	5	1-3/8	2-5/8	2-5/8
3½	4-1/4	1-5/8	9/16	1	1	18	18-1/4	5-7/16	1-3/8	2-3/4	2-3/4
4	4-3/4	1-3/4	9/16	1	1	20	20-1/4	6	1-1/2	3	3
5	5-13/16	2	3/4	1-1/8	1-1/8	24	24-1/4	7-3/16	1-5/8	3-5/8	3-5/8

### A633—Type "C" Pipe Rollers

FOR MOUNTING ON IRON PIPE AXLES

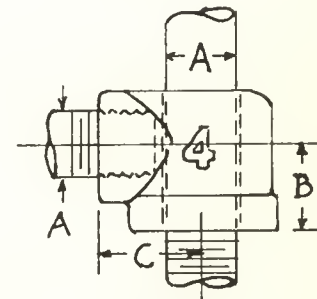
PIPE SIZES	LIST PRICE	A	B	D	C—OPTIONAL CORING		
					1" PIPE	1¼" PIPE	1½" PIPE
1-1½	\$ .40	1-3/4	2-5/8	2-3/8	1½	1¾	2
2-2½	.64	3	3	2-1/2	1½	1¾	2
3-3½	1.20	4-1/8	3-1/8	2-1/2	1½	1¾	2
4-6	1.44	5	3-5/8	2-1/2	1½	1¾	2
8	2.32	6-1/2	4-1/8	2-5/8	1½	1¾	2
10	4.00	8	4-1/4	2-5/8	1½	1¾	2
12	6.40	8-5/16	4-1/2	2-3/4	1½	1¾	2



A-633

### A624—End Sockets

SOCKET NUMBER	LIST PRICES PER PAIR	A	B	C	D	ROLLER SIZES
1	\$ .70	3/8	9/16	9/16	5/8	1-2
2	.70	1/2	11/16	3/4	13/16	2½-3½
3	.70	5/8	3/4	7/8	1	4-5
4	1.00	3/4	1	1	1-1/8	6
5	1.20	7/8-1	1-1/8	1-1/8	1-1/4	8-12
6	1.28	1-1/8-1-1/4	1-1/2	1-3/8	1-1/2	14-16
7	1.80	1-1/4	1-1/2	1-1/2	1-5/8	18
8	2.30	1-3/8	1-5/8	1-5/8	1-3/4	20
9	3.20	1-1/2	1-3/4	1-3/4	1-7/8	24



A-624

## PIPE SUPPORT HARDWARE

## A600—Pipe Roll and Stand

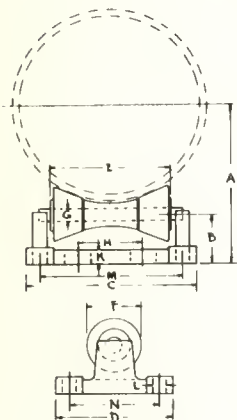
## A601—Roller and Axle Only

## A602—Roller Only

## LIST PRICES AND DIMENSIONS

## NON-ADJUSTABLE

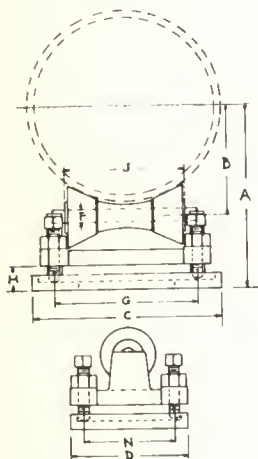
PIPE SIZE	PRICE EACH			A	B	C	D	E	F	G	H	K	L	M	N	BOLT SIZE
A600	A601	A602														
2				3-9/16												
2½	\$2.20	\$ .77	\$.60	3-13/16	1-3/4	4-3/8	4	2¾	1-7/8	1/2		9/16	1/2	3-3/8	3	3/8
3				4-1/8												
3½				4-3/8												
4				4-13/16												
5	2.70	.92	.72	5-7/16	2-1/16	9-7/8	5-5/8	3¾	2-1/16	1/2		3/4	1/2	4-5/16	3	3/8
6				6												
8	3.90	1.80	1.35	8-11/16	3-1/4	8-5/8	6-5/8	6	3-1/4	3/4	4	3/4	5/8	7	5	1/2
10				9-13/16												
12	6.50	3.40	2.70	11-3/8	4	10-15/16	7-7/8	8	4	7/8	5¾	3/4	3/4	9-1/16	6	5/8
14				12												
16				13-1/2												
18	9.25	4.75	3.40	14-5/8	4-1/2	12-3/8	8-5/8	9	4-1/2	1-1/8	6¾	7/8	13/16	10-1/4	6½	5/8
20				15-5/8												
24	15.00	9.00	6.30	17-3/4	4-3/8	13-1/2	8-5/8	10	4-7/16	1-3/8	7½	1	13/16	11-3/8	6½	5/8



A-600

## A612—Pipe Roll with Adjustable Stand

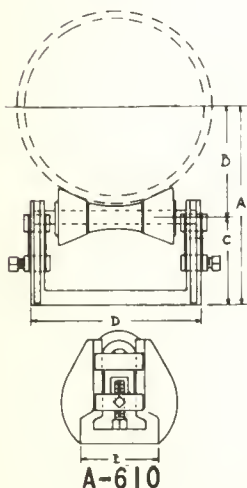
PIPE SIZE	PRICE EACH	A MIN.	A MAX.	B	C	D	E	F	G	MAX. H	J	K
2		5-1/8	5-3/8	1-13/16								
2½	\$7.00	5-3/8	5-5/8	2-1/16	6-7/8	5-1/2	1-7/8	1/2	3-7/8	7/8	2¾	5/8
3		5-3/4	6	2-3/8								
3½		6	6-1/4	2-3/8								
4		6-1/2	7	2-3/4								
5	7.85	7	7-1/2	3-3/8	8-1/8	5-3/4	2-1/16	1/2	5-1/8	1-1/8	3¾	5/8
6		7-5/8	8-1/8	3-15/16								
8	11.50	10-3/8	11-5/8	5-1/4	10-5/8	6-3/4	3-1/4	3/4	7-3/8	1-3/4	6	3/4
10		11-1/2	12-3/4	6-3/8								
12	17.25	13	14-1/4	7-1/2	13	8	4	7/8	9-1/2	1-3/4	8	7/8
14		13-5/8	14-7/8	8-1/8								
16		15-1/4	16-5/8	9-1/4								
18	24.50	16-3/8	17-3/4	10-3/8	14-5/8	8-5/8	4-1/2	1-1/8	11-1/8	1-7/8	9	1
20		17-3/8	18-3/4	11-3/8								
24	32.50	19-5/8	21	13-3/8	15-3/4	8-5/8	4-7/16	1-3/8	12-1/4	1-7/8	10	1



A-612

## A610—Adjustable Pipe Roll Stands

PIPE SIZE	PRICE EACH	A MIN.	A MAX.	B	C MIN.	C MAX.	D	E
1½		3-1/2	4-1/2	1				
2		3-7/8	4-7/8	1-3/8				
2½	\$6.50	4-1/8	5-1/8	1-1/2	2-3/4	3-3/4	3-3/4	2-1/8
3		4-1/2	5-1/2	2				
4		7-1/8	8-3/8	2-3/4				
5	9.25	7-3/4	9	3-3/8	4-3/8	5-1/8	7	6
6		8-5/16	9-9/16	3-15/16				
8	13.50	10-7/8	12-3/8	5-1/4	5-5/8	7-1/8	9-1/2	6
10		12	13-1/2	6-3/8				
12		13-9/16	15-3/16	7-1/2	6	7-5/8	12	6
14 OD	23.00	14-3/16	15-13/16	8-1/8				
16 OD		15-3/8	17	9-1/4				
18 OD	26.50	16-1/2	18-1/8	10-3/8	6-1/8	7-3/4	13	6-1/2
20 OD		17-1/2	19-1/8	11-3/8				
24 OD	33.00	24-3/4	27	13-3/8	6-5/16	8-1/4	14	6-1/2



A-610

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

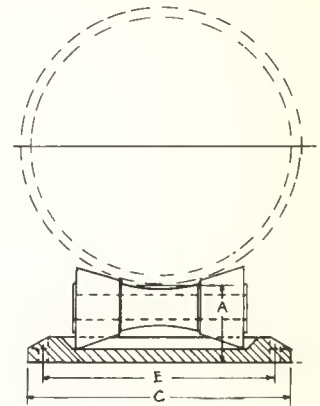




## PIPE SUPPORT HARDWARE

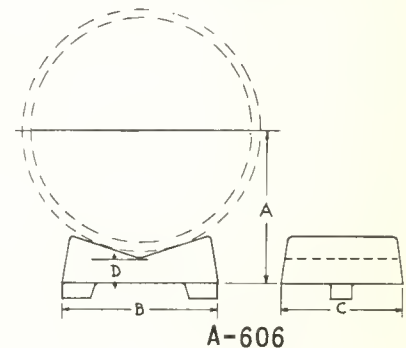
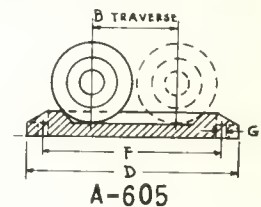
### A605—Pipe Rolls and Travel Plates

PIPE SIZES	COMPLETE	LIST PRICES PLATE	ROLL	A	B	C	D	E	F	G
2-3½	\$1.40	\$.80	\$.60	2-1/8	1-3/4	4-3/4	4-3/4	4	4	9/32
4-6	1.65	.93	.72	2-1/8	2-5/8	5-3/4	5-3/4	5	5	9/32
7-10	3.60	2.25	1.35	3-1/4	4	8-1/4	8-1/4	7-1/4	7-1/4	7/16
12-15	6.25	3.55	2.70	3-7/8	5-5/8	10-3/4	10-3/4	9-3/16	9-3/16	7/16
16-20	8.20	4.80	3.40	4-1/2	6-3/8	12	12	10-5/8	10-5/8	7/16
22-24	13.25	6.95	6.30	4-3/4	7-5/8	13-1/4	13-1/4	11-7/8	11-7/8	1/2



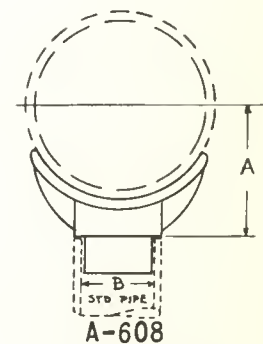
### A606—Cast Iron Pipe Chairs

PIPE SIZES	LIST PRICE	A	B	C	D
4	\$ 5.00	3-3/8	4-1/4	5	1-1/8
5		3-15/16			
6		4-7/16			
8	5.85	5-3/4	6	6	1-7/16
10		6-7/8			
12	6.70	8-5/16	8-1/2	6	1-15/16
14		8-15/16			
16	10.15	10-1/4	11-1/2	6	2-1/4
18		11-1/4			
20		12-1/4			
24		14-1/4			



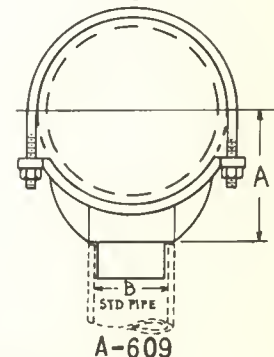
### A608—Cast Iron Pipe Rest

PIPE SIZES	PRICE EACH	A	B	PIPE SIZES	PRICE EACH	A	B
2"	\$1.12	3-7/16"	1½"	10"	\$3.65	8½"	3"
2½	1.16	3-11/16	1½	12	4.25	10	3
3	1.20	3-15/16	1½	14 OD	7.40	11	4
4	1.70	4-1/4	3	16 OD	9.50	12½	4
5	1.90	4-7/8	3	18 OD	12.00	14	4
6	2.50	5-1/2	3	20 OD	25.00	15½	6
8	3.05	7	3	24 OD	36.00	18	6



### A609—C. I. Pipe Rest with Clamp

PIPE SIZES	PRICE EACH	A	B	PIPE SIZES	PRICE EACH	A	B
4"	\$5.80	4-1/4"	3"	14"	\$16.50	11"	4"
5	6.00	4-7/8	3	16	19.20	12½	4
6	6.20	5-1/2	3	18	21.20	14	4
8	7.80	7	3	20	37.00	15½	6
10	9.20	8-1/2	3	24	53.00	18	6
12	11.00	10	3				



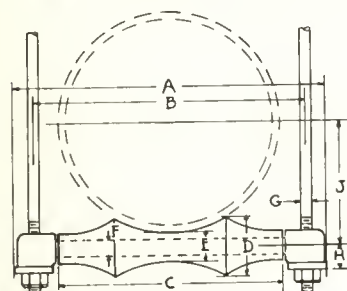
ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## ADJUSTABLE ROLLER PIPE HANGERS

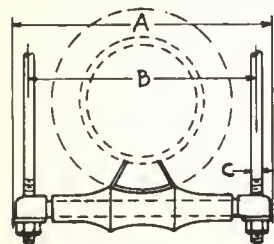
## A622—Adjustable Roller Pipe Hangers

## LIST PRICES AND DIMENSIONS

SIZE	A622	A623	A624	NUMBER	A	B	C	D	E	F	G	H	J
1	\$ 1.00	\$ .26	\$ .35	1-3/8	4-1/8	3	1-1/2	1	3/4	3/8	3/8	9/16	1-1/16
1 1/4	1.10	.27	.35	1-3/8	4-1/2	3-3/8	1-7/8	1-1/16	3/4	3/8	3/8	9/16	1-1/4
1 1/2	1.12	.34	.35	1-3/8	4-3/4	3-5/8	2-1/8	1-1/8	3/4	3/8	3/8	9/16	1-3/8
2	1.14	.36	.35	1-3/8	5-1/4	4-1/8	2-5/8	1-3/16	3/4	3/8	3/8	9/16	1-5/8
2 1/2	1.16	.38	.35	2-7/16	6-1/4	4-7/8	3-1/8	1-3/8	7/8	7/16	1/2	11/16	1-15/16
3	1.30	.48	.35	2-7/16	6-7/8	5-1/2	3-3/4	1-7/16	7/8	7/16	1/2	11/16	2-1/4
3 1/2	1.65	.86	.35	2-1/2	7-1/2	6-1/8	4-1/4	1-5/8	1	1/2	1/2	3/4	2-9/16
4	1.75	.90	.35	3-1/2	8-1/4	6-3/4	4-3/4	1-3/4	1	1/2	5/8	3/4	2-13/16
5	2.05	1.16	.35	3-5/8	9-11/16	8-1/16	5-13/16	2	1-1/8	5/8	5/8	7/8	3-7/16
6	2.35	1.20	.50	4-3/4	11-7/16	9-9/16	6-7/8	2-5/16	1-1/4	3/4	3/4	1	4
8	2.60	1.25	.60	5-7/8	14-1/16	11-15/16	8-7/8	2-13/16	1-1/2	7/8	7/8	1-1/8	5-1/8
10	2.75	1.30	.60	5-7/8	16-3/16	14-1/16	11	3-3/8	1-3/4	7/8	7/8	1-1/8	6-3/8
12	3.75	2.00	.60	5-1	18-7/16	16-5/16	13	3-7/8	2	1	7/8	1-1/4	7-7/16
14	7.00	4.00	.64	6-1-1/8	20-1/8	17-3/4	14-1/4	4-5/8	2-1/2	1-1/8	1	1-3/8	8-3/8
16	8.25	5.20	.68	6-1-1/4	22-1/8	19-3/4	16-1/4	5	2-5/8	1-1/4	1	1-1/2	9-7/16
18	11.60	7.50	.90	7-1-1/4	24-1/2	21-7/8	18-1/4	5-7/16	2-3/4	1-1/4	1-1/8	1-1/2	10-1/2
20	14.00	9.00	1.15	8-1-3/8	27-1/4	24-1/4	20-1/4	6	3	1-3/8	1-1/4	1-5/8	11-5/8
24	22.00	15.00	1.60	9-1-1/2	32-1/8	28-5/8	24-1/4	7-3/16	3-5/8	1-1/2	1-1/2	1-3/4	14



A-622 - COMPLETE  
A-623 - ROLLER ONLY  
A-624 - END SOCKETS, ONLY



A-625 - COMPLETE  
A-626 - ROLLER ONLY  
A-627 - SPECIAL SOCKET

FOR USE WHERE COVERING  
AND COVERING PROTECTION  
SADDLES ARE REQUIRED.

(Prices do not include Protector  
Saddles)

## A625—Adjustable Roller Pipe Hangers

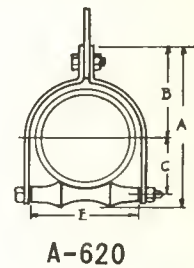
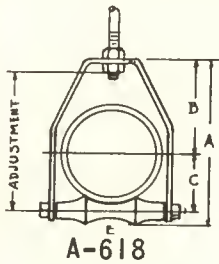
## LIST PRICES AND DIMENSIONS

ROLLER SIZE	A625	A627	SOCKET NUMBER	SIZE OF COVERED PIPE	A	B	C
4"	\$1.75	\$ .35	2-1/2	2 1/2-3"	8"	6-5/8	1/2
			2-5/8	3 1/2	9-7/16	8-1/16	1/2
5	2.05	.35	3-5/8	4	9-11/16		5/8
			2-3/4	2 1/2	10-15/16	9-9/16	1/2
6	2.35	.50	3-3/4	5	11-3/16		5/8
			2-3/4	3-3/2	11-15/16		1/2
7	2.50	.50	2-3/4	4	12-3/16	10-9/16	5/8
			4-3/4	6	12-7/16		3/4
8	2.60	.60	2-7/8	3-3/2	13-5/16	11-15/16	1/2
			3-7/8	5	13-9/16		5/8
			3-7/8	4	14-9/16		5/8
9	2.70	.60	4-7/8	6	14-13/16	12-15/16	3/4
			5-7/8	8	15-1/16		7/8
10	2.75	.60	3-7/8	5	15-11/16	14-1/16	5/8
			4-1	6	18-3/16	16-5/16	3/4
12	3.75	.60	5-1	8-10	18-7/16		7/8
14 O.D.	7.00	.64	5-1-1/8	10	19-7/8	17-3/4	7/8
15 O.D.	7.90	.64	5-1-1/8	10-12	20-7/8	18-3/4	7/8
			5-1-1/4	10	21-7/8		7/8
16 O.D.	8.25	.68	6-1-1/4	14	22-1/8	19-3/4	1
		.68	5-1-1/4	12	23-7/8	21-3/4	7/8
18 O.D.	11.60	.68	6-1-1/4	14-16	24-1/8	21-3/4	1
		.90	7-1-1/4	18	24-1/2	24-1/2	1-1/8
			6-1-1/2	16	31		1
			7-1-1/2	18	31-1/4		1-1/8
24 O.D.	22.00	1.60	8-1-1/2	20	31-5/8	28-5/8	1-1/4
			9-1-1/2	24	32-1/8		1-1/2

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## ROLLER PIPE HANGERS



LIST PRICES AND DIMENSIONS

PIPE SIZE	BLACK	GALV.	A	B	C	D	E	ADJ	PIPE SIZE	BLACK	GALV.	A	B	C	D
1	\$1.07	\$2.14	4-7/16	2-11/16	1-1/16	3/8	1-3/4	1 1/2	1	\$ .61	\$1.22	4-1/8	2-3/8	1-1/16	3/8
1 1/4	1.18	2.36	5	2-15/16	1-1/4	3/8	2-1/4	1 1/2	1 1/4	.64	1.28	4-1/2	2-9/16	1-1/4	3/8
1 1/2	1.24	2.48	5-9/16	3-5/16	1-3/8	3/8	2-7/16	1 1/4	1 1/2	.68	1.36	5	2-11/16	1-3/8	3/8
2	1.33	2.66	5-11/16	3-1/2	1-5/8	3/8	2-15/16	1 3/4	2	.80	1.60	5-1/4	3-1/8	1-5/8	3/8
2 1/2	1.50	3.00	6-3/4	4-1/8	1-15/16	1/2	3-7/16	2	2 1/2	.96	1.92	5-7/8	3-1/4	1-15/16	1/2
3	1.75	3.50	7-1/2	4-7/16	2-5/16	1/2	4-1/16	2	3	1.05	2.10	6-5/8	3-5/8	2-5/16	1/2
3 1/2	1.90	3.80	8-1/16	4-11/16	2-9/16	1/2	4-11/16	2	3 1/2	1.22	2.44	7-1/4	3-13/16	2-9/16	1/2
4	2.10	4.20	8-7/8	5	2-7/8	5/8	5-5/16	2	4	1.30	2.60	8	4-1/8	2-7/8	1/2
5	2.25	4.50	10-1/16	5-9/16	3-7/16	5/8	6-9/16	2	5	1.57	3.14	9-1/4	4-3/4	3-7/16	1/2
6	2.70	5.40	11-3/16	6-3/16	4	3/4	7-13/16	2	6	1.75	3.50	10-3/4	5-3/4	4	1/2
8	3.50	7.00	13-1/16	7-5/16	5-1/16	7/8	10-1/16	2	8	2.30	4.60	13-3/8	7	5-1/16	5/8
10	4.50	9.00	16-5/8	8-5/8	6-5/16	7/8	12-9/16	2	10	3.40	6.80	17	9	6-5/16	3/4
12	5.50	11.00	18-11/16	9-5/8	7-3/8	7/8	14-9/16	2	12	4.80	9.60	19	10-1/8	7-3/8	3/4

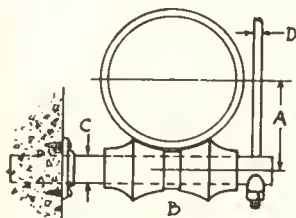
### SIZES FOR USE WITH STANDARD COVERING

1" Pipe plus 7/8" Covering - Use 2 1/2" Roller	
1 1/4 " " 7/8 " " 3 " "	
1 1/2 " " 7/8 " " 3 1/2 " "	
2 " " 1-1/32 " " 4 " "	
2 1/2 " " 1-1/32 " " 5 " "	
3 " " 1-1/32 " " 5 " "	
3 1/2 " " 1-1/32 " " 6 " "	
4 " " 1-1/8 " " 6 " "	
5 " " 1-1/8 " " 7 " "	
6 " " 1-1/8 " " 8 " "	
8 " " 1-1/4 " " 10 " "	
10 " " 1-1/4 " " 12 " "	
12 " " 1-1/2 " " 16 " "	

### SIZES FOR USE WITH DOUBLE THICK COVERING

1 1/2" Pipe plus 1-3/4" Covering - Use 5" Roller	
2 " " 2-1/16 " " 6 " "	
2 1/2 " " 2-1/16 " " 6 " "	
3 " " 2-1/16 " " 7 " "	
3 1/2 " " 2-1/16 " " 8 " "	
4 " " 2-1/4 " " 8 " "	
5 " " 2-1/4 " " 9 " "	
6 " " 2-1/4 " " 10 " "	
8 " " 2-1/2 " " 14 " "	
10 " " 2-1/2 " " 16 " "	
12 " " 3 " " 20 " "	

### Pipe Roller for Pipe Axle



- A-630 - COMPLETE
- A-631 - ROD FLANGE ONLY
- A-632 - WALL FLANGE ONLY

SPECIFICATIONS MUST STATE  
SIZE OF PIPE AXLE "C" AND  
ROD DIAMETER "D".

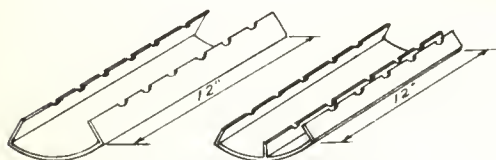
Rollers are Cored: -

- 1 1/2" for 1" Pipe Axle
- 1 3/4" for 1 1/4" Pipe Axle
- 2" for 1 1/2" Pipe Axle

PIPE SIZE	PRICE ROLLER	ROD FLANGE	WALL FLANGE	A	B
1"	\$ .40	\$ .24	\$ .45	1-7/8"	1-3/4"
1 1/4	.40	.24	.45	2-1/16	1-3/4
1 1/2	.40	.24	.45	2-3/16	1-3/4
2	.64	.24	.45	2-1/2	3
2 1/2	.64	.24	.45	2-13/16	3
3	.64	.24	.45	3-1/8	3
3 1/2	1.20	.24	.45	3-5/16	4-1/8
4	1.20	.24	.45	3-9/16	4-1/8
5	1.44	.24	.45	4-1/8	5
6	1.44	.24	.45	4-5/8	5
7	2.32	.24	.45	5-1/8	6-1/2
8	2.32	.24	.45	5-3/4	6-1/2
9	4.00	.24	.45	6-1/4	8
10	4.00	.24	.45	6-3/4	8
12	6.40	.24	.45	7-13/16	8-5/16

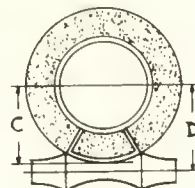


## PIPE COVERING PROTECTION SADDLES

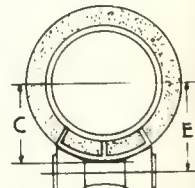


**TYPE A**  
10" PIPE AND  
SMALLER

**TYPE B**  
12" PIPE AND  
LARGER



**SUPPORT FROM  
ABOVE A623  
ROLLER SHOWN**



**SUPPORT FROM  
BENEATH A602  
ROLLER SHOWN**

USE PLATE 640 FOR STANDARD THICK COVERING								USE PLATE A641 FOR 2" THICK COVERING							
PIPE SIZE	PRICE EACH	COVER THICK	SIZE A623	ROLLER A602	C	D	E	PRICE EACH	COVER THICK	SIZE A623	ROLLER A602	C	D	E	
¾	\$1.85	7/8"	2"	2-3½"	1-1/2"	1-15/16"	2-1/16"	\$1.95	2"	4"	2 3½"	2-11/16"	3-1/4"	3-3/8"	
1	1.85	7/8	2	2-3½	1-11/16	2-1/8	2-1/4	1.95	2	4	2-3½	2-13/16	3-3/8	3-1/2	
1¼	2.10	7/8	2½	2-3½	1-13/16	2-5/16	2-7/16	2.25	2	5	2-3½	3	3-5/8	3-11/16	
1½	2.10	7/8	3	2-3½	1-15/16	2-1/2	2-5/8	2.25	2	5	2-3½	3-1/16	3-11/16	3-3/4	
2	2.35	1-1/32	3½	2-3½	2-3/8	2-15/16	3	2.50	2	6	4-6	3-5/16	4	3-15/16	
2½	2.35	1-1/32	4	2-3½	2-5/8	3-1/4	3-1/4	2.50	2	6	4-6	3-9/16	4-1/4	4-3/16	
3	2.70	1-1/32	4	2-3½	3	3-5/8	3-5/8	2.90	2	7	4-6	3-15/16	4-13/16	4-5/8	
3½	2.70	1-1/32	5	4-6	3-1/4	3-15/16	3-7/8	2.90	2	7	4-6	4-3/16	5-1/16	4-7/8	
4	2.80	1-1/8	5	4-6	3-9/16	4-1/4	4-3/16	3.05	2	7	4-6	4-7/16	5-5/16	5-1/8	
5	2.80	1-1/8	6	4-6	4-3/16	4-15/16	4-7/8	3.05	2	8	7-10	5-1/16	5-15/16	6	
6	2.95	1-1/8	7	4-6	4-11/16	5-9/16	5-3/8	3.20	2	9	7-10	5-9/16	6-9/16	6-5/8	
8	3.70	1-1/4	9	7-10	5-13/16	6-13/16	6-13/16	4.20	2	12	7-10	6-9/16	7-11/16	7-11/16	
10	4.50	1-1/4	12	7-10	6-15/16	8	8-1/16	5.00	2	14	12-15	7-11/16	9-1/16	8-7/8	
12	4.80	1-1/2	15	12-15	8-3/16	9-5/8	9-7/16	5.60	2	15	12-15	8-11/16	10-3/16	9-7/8	
14 OD	5.30	1-1/2	16	16-20	8-7/8	10-7/16	10-1/4	6.00	2	16	16-20	9-3/8	10-15/16	10-3/4	
16 OD	5.75	1-1/2	18	16-20	9-7/8	11-7/16	11-1/4	6.70	2	18	16-20	10-3/8	12	11-3/4	
18 OD	6.15	1-1/2	18	16-20	11	12-9/16	12-3/8	7.10	2	24	22-24	11-1/2	13-7/16	12-15/16	
20 OD	6.60	1-1/2	24	22-24	12	13-13/16	13-3/8	7.60	2	24	22-24	12-1/2	14-7/16	13-15/16	
24 OD	7.05	1-1/2	24	26-30	14	16-1/8	15-11/16	8.10	2	30	26-30	14-1/2	17	16-1/4	

USE PLATE A642 FOR DOUBLE STANDARD COVERING								USE PLATE A643 FOR DOUBLE 1½ INCH COVERING							
PIPE SIZE	PRICE EACH	COVER THICK	SIZE ROLLER		C	D	E	PRICE EACH	COVER THICK	SIZE ROLLER		C	D	E	
			A623	A602						A623	A602				
¾	\$1.95	1-3/4"	4"	2-3½"	2-3/8"	2-15/16"	3"								
1	1.95	1-3/4	4	2-3½	2-9/16	3-1/8	3-1/4								
1¼	2.25	1-3/4	5	2-3½	2-3/4	3-3/8	3-7/16								
1½	2.25	1-3/4	5	2-3½	2-13/16	3-7/16	3-1/2								
2	2.50	2-1/16	6	4-6	3-3/8	4-1/16	4-1/4	\$2.85	3"	7"	4-6"	4-3/8"	5-1/4"	5-1/16"	
2½	2.50	2-1/16	6	4-6	3-5/8	4-5/16	4-5/16	2.85	3	7	4-6	4-5/8	5-1/2	5-5/16	
3	2.90	2-1/16	7	4-6	4	4-7/8	4-5/8	3.25	3	8	7-10	4-15/16	5-13/16	5-15/16	
3½	2.90	2-1/16	7	4-6	4-1/4	5-1/8	4-15/16	3.25	3	8	7-10	5-3/16	6-1/16	6-3/16	
4	3.05	2-1/4	7	4-6	4-11/16	5-7/16	5-3/8	3.35	3	9	7-10	5-7/16	6-7/16	6-1/2	
5	3.05	2-1/4	8	7-10	5-5/16	6-3/16	6-5/16	3.35	3	10	7-10	6-1/16	7-1/8	7-1/8	
6	3.20	2-1/4	9	7-10	5-13/16	6-13/16	6-13/16	3.50	3	12	7-10	6-9/16	7-5/8	7-11/16	
8	4.20	2-1/2	12	12-15	7-1/16	8-1/4	8-1/4	4.50	3	12	12-15	7-9/16	8-3/4	8-11/16	
10	5.00	2-1/2	15	12-15	8-3/16	9-11/16	9-7/16	5.45	3	16	16-20	8-11/16	10-3/16	10-1/16	
12 OD	5.60	3	18	16-20	9-11/16	11-5/16	11-1/16	12 TO 24 INCH SIZES, SEE A642							
14 OD	6.00	3	18	16-20	10-3/8	12	11-3/4								
16 OD	6.70	3	24	22-24	11-3/8	13-1/4	12-13/16								
18 OD	7.10	3	24	22-24	12-1/2	14-7/16	14								
20 OD	7.60	3	24	26-30	13-1/2	15-9/16	15-1/8								
24 OD	8.10	3	30	26-30	15-1/2	18	17-1/4								

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## DIMENSIONS AND WEIGHTS OF PIPE

NOMINAL INTERNAL INCHES	DIAMETER		NOMINAL THICK- NESS INCHES	TRANSVERSE AREAS		LENGTH OF PIPE OR SQUARE FEET OF		NOMINAL WEIGHT PER FOOT LBS.	NUMBER OF THREADS PER IN. OF SCREW
	ACTUAL EXTERNAL INCHES	APPROX. INTERNAL DIA. IN.		EXTERNAL SQ. IN.	INTERNAL SQ. IN.	EXTERNAL SURFACE FEET	INTERNAL SURFACE FEET		
1/8	.405	.270	.068	.129	.0568	9.440	14.15	.241	27
1/4	.540	.364	.088	.229	.1041	7.075	10.49	.42	18
3/8	.675	.494	.091	.358	.1909	5.657	7.76	.559	18
1/2	.840	.623	.109	.554	.3039	4.547	6.15	.837	14
3/4	1.050	.824	.113	.866	.5333	3.637	4.635	1.115	14
1	1.315	1.048	.134	1.358	.8609	2.904	3.645	1.668	11-1/2
1-1/4	1.660	1.380	.140	2.164	1.496	2.301	2.768	2.244	11-1/2
1-1/2	1.900	1.611	.145	2.835	2.038	2.010	2.371	2.678	11-1/2
2	2.375	2.067	.154	4.430	3.356	1.608	1.848	3.609	11-1/2
2-1/2	2.875	2.468	.204	6.492	4.780	1.328	1.547	5.739	8
3	3.500	3.067	.217	9.621	7.388	1.091	1.245	7.536	8
3-1/2	4.	3.548	.226	12.566	9.887	.955	1.077	9.001	8
4	4.5	4.026	.237	15.904	12.730	.849	.949	10.665	8
4-1/2	5.	4.508	.246	19.635	15.961	.764	.848	12.34	8
5	5.563	5.045	.259	24.306	19.985	.687	.757	14.502	8
6	6.625	6.065	.280	34.472	28.886	.577	.630	18.762	8
7	7.625	7.023	.301	45.664	38.743	.501	.544	23.271	8
8	8.625	7.982	.322	58.426	50.021	.443	.478	28.177	8
9	9.625	8.937	.344	72.76	62.722	.397	.427	33.701	8
10	10.75	10.019	.366	90.763	78.822	.355	.381	40.065	8
11	11.75	11.000	.375	108.434	95.034	.325	.348	45.950	8
12	12.75	12.000	.375	127.677	113.098	.299	.319	48.985	8

## Extra Strong Pipe

1/8	.405	.205	.100	.129	.033	9.433	18.632	.29	
1/4	.540	.294	.123	.229	.068	7.075	12.986	.54	
3/8	.675	.421	.127	.358	.139	5.657	9.070	.74	
1/2	.840	.542	.149	.554	.231	4.547	7.046	1.09	
3/4	1.050	.736	.157	.866	.425	3.637	5.109	1.39	
1	1.315	.951	.182	1.358	.710	2.904	4.016	2.17	
1-1/4	1.660	1.272	.194	2.164	1.271	2.301	3.003	3.00	
1-1/2	1.900	1.494	.203	2.835	1.753	2.010	2.556	3.63	
2	2.375	1.933	.221	4.430	2.935	1.608	1.975	5.02	
2-1/2	2.875	2.315	.280	6.492	4.209	1.328	1.649	7.67	
3	3.500	2.892	.304	9.621	6.569	1.091	1.328	10.25	
3-1/2	4.000	3.358	.321	12.566	8.856	.955	1.37	12.47	
4	4.500	3.818	.341	15.904	11.449	.849	1.000	14.97	
4-1/2	5.000	4.280	.360	19.635	14.387	.764	.893	18.22	
5	5.563	4.813	.375	24.306	18.193	.687	.793	20.54	
6	6.625	5.751	.437	34.472	25.976	.577	.664	28.58	
7	7.625	6.625	.500	45.664	34.472	.501	.598	37.67	
8	8.625	7.625	.500	58.426	45.664	.443	.502	43.00	
9	9.655	8.625	.500	72.760	58.426	.397	.443	48.25	
10	10.750	9.750	.500	90.763	74.662	.355	.399	54.25	
12	12.750	11.750	.500	127.680	108.430	.299	.325	65.00	

## Double Extra Strong Pipe

1/2	.840	.244	.298	.554	.047	4.547	15.667	1.70	
3/4	1.050	.422	.314	.866	.140	3.637	9.049	2.44	
1	1.315	.587	.364	1.358	.271	2.904	6.508	3.65	
1-1/4	1.660	.885	.388	2.164	.615	2.304	4.317	5.20	
1-1/2	1.900	1.088	.406	2.835	.930	2.010	3.511	6.40	
2	2.375	1.491	.442	4.430	1.744	1.608	2.561	9.02	
2-1/2	2.875	1.755	.560	6.492	2.419	1.328	2.176	13.68	
3	3.500	2.284	.608	9.621	4.097	1.091	1.672	18.56	
3-1/2	4.000	2.716	.642	12.566	5.794	.955	1.406	22.75	
4	4.500	3.136	.682	15.904	7.724	.849	1.217	27.48	
4-1/2	5.000	3.564	.718	19.635	9.976	.764	1.070	32.53	
5	5.563	4.063	.750	24.306	12.965	.687	.940	38.12	
6	6.625	4.875	.875	34.472	18.665	.577	.784	53.11	
7	7.625	5.875	.875	45.664	27.109	.501	.650	62.38	
8	8.625	6.875	.875	58.426	37.122	.443	.550	71.62	



## PIPE FITTINGS — EXPLANATORY NOTES

## CAST IRON FLANGED FITTINGS AND FLANGES

AMERICAN STANDARD CLASS 125—APPROVED JANUARY 1939—AMERICAN STANDARDS ASSOCIATION

**PRESSURE RATING.** These flanges and fittings are rated as follows:

For maximum saturated steam service pressures of

- 125 lb. per sq. in. (Gage) sizes 1 to 5" incl.
- 100 lb. per sq. in. (Gage) sizes 6 to 12" incl.
- 80 lb. per sq. in. (Gage) sizes 14 to 24" incl.
- 50 lb. per sq. in. (Gage) sizes 30 to 48" incl.

For maximum water service pressures at or near the ordinary range of air temperature

- 75 lb. per sq. in. (Gage) sizes 1 to 12" incl.
- 150 lb. per sq. in. (Gage) sizes 14 to 48" incl.

for flanges only.\*

**MARKING.** All fittings shall have marks cast on them indicating the manufacturer and, also, figures indicating the saturated steam service pressure rating—as follows:

- Sizes up to 5 in. inclusive, figures 125
- Sizes 6 to 12 in. inclusive, figures 100
- Sizes 14 to 24 in. inclusive, figures 80
- Sizes 30 to 48 in. inclusive, figures 50

These marking requirements comply with principles established in MSS Standard Practice SP-25.

**MATERIAL: CASTINGS:** The dimensions prescribed in this standard are based upon gray iron castings of high quality produced under regular control of chemical and physical properties by a recognized process. The manufacturer shall be prepared to certify that his product has been so produced and that the chemical and physical properties thereof, as proved by test specimens, are equal to the requirements specified in A.S.T.M. Specification A126.

Flanges and fittings 12 in. and smaller shall be made of material equal to the requirements of A.S.T.M. Specification A126 Class "A" regular gray iron.

Flanges and fittings 14 in. and larger shall be made of material equal to the requirements of A.S.T.M. specification A126, Class "B" higher strength gray iron. Requirements of A.S.T.M. A126 are as follows:

## CLASS A

Sulphur.....	0.12 per cent maximum
Phosphorus.....	0.75 per cent maximum
Tensile strength.....	21,000 lb. per sq. in. min.

## CLASS B

Sulphur.....	0.12 per cent maximum
Phosphorus.....	0.75 per cent maximum
Tensile strength.....	31,000 lb. per sq. in. min.

It is intended that material required by this standard shall be in accordance with the requirements shown herein or as required in the latest edition of A.S.T.M. Standard Specifications for Gray-Iron Castings for Valves, Flanges, and Pipe Fittings (A126).

**BOLTING.** Carbon steel bolts for use with these flanges and fittings shall be made of metal which conforms to A.S.T.M. Specification A107.

\*Water service ratings as shown for sizes 14" and larger are applicable to flanges only. Water service ratings on fittings 14" and larger

**WALL THICKNESS TOLERANCE.** Patterns shall be designed to produce castings (fittings and flanges) having the wall or metal thicknesses given in the tables. The wall thicknesses of the castings at no point shall be less than 87½ per cent of the dimensions given. These fittings shall be designed to withstand, without showing leaks, hydrostatic test pressures of twice the rated steam pressure. Hydrostatic tests of cast-iron fittings covered by this standard are not required unless specified by the user.

**FACING.** These cast iron flanges and flanged fittings shall be plain faced; i.e., without projection or raised face.

An inspection limit of plus or minus 1/32 in. shall be allowed on all center to contact surface dimensions for sizes up to and including 10 in. and plus or minus 1/16 in. on sizes larger than 10 in. An inspection limit of plus or minus 1/16 in. shall be allowed on all contact surface to contact surface dimensions for sizes up to and including 10 in. and plus or minus 1/8 in. on sizes larger than 10 in.

**SPOT FACING. FLANGES.** The bolt holes of these cast-iron flanges need not be spot faced for ordinary service except, as follows: In sizes 12 in. and smaller when rough flanges, after facing, are oversize more than 1/8 in. in thickness, they shall be spot faced to the specified thickness of flange (minimum) with a plus tolerance of 1/16 in. In sizes 14 to 24 in., inclusive, when rough flanges, after facing, are oversize more than 3/16 in. in thickness they shall be spot faced to the specified thickness of flange (minimum) with a plus tolerance of 1/16 in. In sizes 30 in. and larger when rough flanges, after facing, are oversize more than 1/4 in. in thickness they shall be spot faced to the specified thickness of flange (minimum) with a plus tolerance of 1/8 in.

**FITTINGS.** The bolt holes of the flanges on these cast-iron fittings need not be spot faced on sizes smaller than 18 in. for ordinary service, except as required for oversize thickness of flanges as indicated above. The bolt holes of all flanges 18 to 24 in., inclusive, shall be spot faced to the specified thickness of the flange (minimum) with a plus tolerance of 1/16 in., and of all flanges on fittings sizes 30 to 48 in., inclusive, they shall be spot faced to the specified thickness of the flange (minimum) with a plus tolerance of 1/8 in.

**SIDE OUTLET FITTINGS.** Side outlet elbows, side outlet tees and side outlet crosses shall have all openings on intersecting center lines.

**CROSSES.** Crosses both straight and reducing sizes 18 in. and larger shall be reinforced to compensate for the inherent weakness in the casting design.

**LATERALS.** Laterals (Y-Branches) both straight and reducing sizes 8-in. and larger shall be reinforced to compensate for the inherent weakness in the casting design.

are withheld awaiting report on research work being conducted by ASA Committee A21.



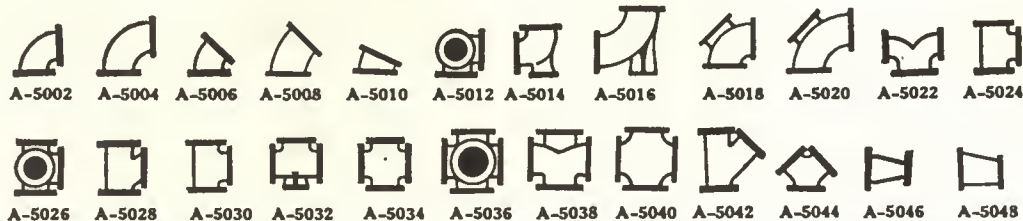


## FLANGED FITTINGS

## PRICE LIST—SERIES A5000

ALL FLANGED FITTINGS FURNISHED FACED AND DRILLED UNLESS OTHERWISE ORDERED

## Cast Iron Flanged Fittings—Class 125



	1½"	2"	2½"	3"	3½"	4"	5"	6"
A-5002 - 90° Elbow	\$7.20	\$7.20	\$ 8.10	\$ 9.40	\$11.50	\$12.50	\$15.00	\$21.60
A-5002 - 90° Elbow, Reducing		13.20	14.00	15.00	17.00	18.50	21.00	28.00
A-5004 - 90° Elbow, Long Radius		12.00	13.50	15.00	18.50	19.50	24.00	31.00
A-5004 - 90° L.R. ELL, Reducing				21.50		27.00	35.00	44.00
A-5006 - 45° Elbow	8.30	8.30	9.30	11.00	13.00	14.50	18.00	22.00
A-5012 - Side Outlet Elbow						62.00	68.00	70.00
A-5014 - 90° Base Elbow						21.50	32.50	38.50
A-5046 - Taper Reducer			14.00	15.00	18.00	20.00	24.50	30.00
A-5048 - Eccentric Reducers				15.00		20.00	24.50	30.00
A-5024 - Tees	9.50	9.50	11.00	12.00	19.00	20.00	24.50	29.00
A-5024 - Tees, Reducing		13.25	14.50	17.50		25.00	30.00	35.00
A-5034 - Cross		17.50	19.00	21.00		30.00	38.00	47.00
A-5042 - 45° Lateral		20.00	22.00	24.50		34.00	43.00	58.00
A-5003 - Companion Flange	1.53	1.70	1.87	2.30	2.90	3.45	4.15	5.00
A-5007 - Blind Flange	1.70	1.85	2.05	2.55	3.20	3.85	5.20	6.30
A-5005 - Reducing Flange	2.20	2.45	2.70	3.45	4.35	5.20	6.25	7.50
	8"	10"	12"	14"	16"	18"	20"	24"
A-5002 - 90° Elbow	\$33.00	\$60.00	\$86.00	\$114.00	\$162.00	\$230.00	\$325.00	\$420.00
A-5002 - 90° Elbow, Reducing	41.00	64.00	111.00	157.00	190.00			
A-5004 - 90° Elbow, Long Radius	54.00	81.00	130.00	203.00	270.00	338.00	433.00	810.00
A-5004 - 90° L.R. ELL, Reducing	76.00	135.00	195.00					
A-5006 - 45° Elbow	33.00	59.00	86.00	114.00	162.00			
A-5012 - Side Outlet Elbow	108.00	160.00	230.00					
A-5014 - 90° Base Elbow	51.00	82.00	118.00					
A-5046 - Taper Reducer	38.00	68.00	103.00	148.00	190.00			
A-5048 - Eccentric Reducer	38.00	68.00	103.00					
A-5024 - Tees	43.00	86.00	108.00	189.00	270.00	325.00	400.00	600.00
A-5024 - Tees, Reducing	60.00	90.00	130.00	200.00				
A-5034 - Cross	76.00	113.00	162.00					
A-5042 - 45° Lateral	86.00	130.00	189.00					
A-5003 - Companion Flange	7.50	11.00	15.00	24.00	35.00	42.00	50.00	70.00
A-5007 - Blind Flange	9.30	13.70	21.00	33.50	49.00	59.00	70.00	98.00
A-5005 - Reducing Flange	11.20	16.50	22.50					

Galvanized Fittings, add 40% to List Prices of Black Fittings.  
Extra for Spot Facing Bolt Holes is 20 Cents per Hole, List.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## CAST IRON FLANGES

Series A5000—Class 125

## Companion Flanges

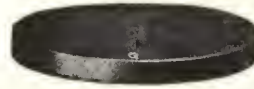


A5005  
COMPANION FLANGE  
HUB VIEW

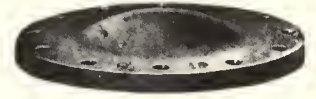


A5003  
COMPANION FLANGE  
FACE VIEW\*

## Blind Flanges



A5007  
BLIND FLANGE  
16-INCH O.D.  
AND SMALLER



A5009  
BLIND FLANGE\*  
19-INCH O.D.  
AND LARGER

## SIZES, WEIGHTS AND PRICES

PIPE SIZE OF FLANGED FIT- TING OR VALVE INCHES	OUTSIDE DIA- METER OF FLANGE INCHES	APPROX. WEIGHT EACH POUNDS	BLIND PRICE FACED AND DRILLED EACH
1	4-1/4	2	1.70
1 1/4	4-5/8	3	1.70
1 1/2	5	3	1.70
2	6	5	1.85
2 1/2	7	7	2.05
3	7 1/2	9	2.55
3 1/2	8 1/2	12	3.20
4	9	16	3.85
5	10	20	5.20
6	11	25	6.30
8	13 1/2	42	9.30
10	16	63	13.70
12	19	88	21.00
14 OD	21	115	33.50
16 OD	23 1/2	160	49.00
18 OD	25	190	59.00
20 OD	27 1/2	250	70.00
24 OD	32	370	98.00
30 OD	38 3/4	620	P.O.A.
36 OD	46	990	P.O.A.
42 OD	53	1470	P.O.A.
48 OD	59 1/2	2000	P.O.A.

## SIZES, WEIGHTS AND PRICES

REDUCING PRICE FACED AND DRILLED	TAPPED FOR PIPE SIZE INCHES	OUTSIDE DIA- METER OF FLANGE IN.	APPROX. WT. EACH POUNDS	COMPANION PRICE FACED AND DRILLED EACH
2.20	1	4-1/4	2	1.53
2.20	1 1/4	4-5/8	2	1.53
2.20	1 1/2	5	3	1.53
2.45	2	6	5	1.70
2.70	2 1/2	7	7	1.87
3.45	3	7 1/2	8	2.30
4.35	3 1/2	8 1/2	11	2.90
5.20	4	9	14	3.45
6.25	5	10	17	4.15
7.50	6	11	22	5.00
11.20	8	13 1/2	31	7.50
16.50	10	16	45	11.00
22.50	12	19	63	15.00
P.O.A.	14 OD	21	82	24.00
P.O.A.	16 OD	23 1/2	105	35.00
P.O.A.	18 OD	25	120	42.00
P.O.A.	20 OD	27 1/2	150	50.00
P.O.A.	24 OD	32	220	70.00

Flanges, 19 inches O.D. and larger, are dished to a radius equal to port diameter of pipe size. "Spot Facing" of bolt holes, when so ordered, will be charged for extra at 10 cents per hole.

All American Standard Class 125 cast iron flanges have plain face.



## PIPE FITTINGS

Templates For Drilling Cast Iron Flanges, Flanged Pipe,  
Fittings and Valves

AMERICAN STANDARD CLASS 125

EFFECTIVE JANUARY 1939

ALL DIMENSIONS ARE IN INCHES

SIZE INCHES	DIAMETER OF FLANGE INCHES	THICKNESS OF FLANGE (MIN.) INCHES	DIAMETER OF BOLT CIRCLE INCHES	NUMBER OF BOLTS	DIAMETER OF BOLTS INCHES	LENGTH OF BOLTS INCHES	LENGTH OF BOLT-STUDS WITH TWO NUTS INCHES
1	4-1/4	7/16	3-1/8	4	1/2	1-3/4	.....
1-1/4	4-5/8	1/2	3-1/2	4	1/2	2	.....
1-1/2	5	9/16	3-7/8	4	1/2	2	.....
2	6	5/8	4-3/4	4	5/8	2-1/4	.....
2-1/2	7	11/16	5-1/2	4	5/8	2-1/2	.....
3	7-1/2	3/4	6	4	5/8	2-1/2	.....
3-1/2	8-1/2	13/16	7	8	5/8	2-3/4	.....
4	9	15/16	7-1/2	8	5/8	3	.....
5	10	15/16	8-1/2	8	3/4	3	.....
6	11	1	9-1/2	8	3/4	3-1/4	.....
8	13-1/2	1-1/8	11-3/4	8	3/4	3-1/2	.....
10	16	1-3/16	14-1/4	12	7/8	3-3/4	.....
12	19	1-1/4	17	12	7/8	3-3/4	.....
14	21	1-3/8	18-3/4	12	1	4-1/4	.....
16	23-1/2	1-7/16	21-1/4	16	1	4-1/2	.....
18	25	1-9/16	22-3/4	16	1-1/8	4-3/4	.....
20	27-1/2	1-11/16	25	20	1-1/8	5	.....
24	32	1-7/8	29-1/2	20	1-1/4	5-1/2	.....
30	38-3/4	2-1/8	36	28	1-1/4	6-1/4	.....
36	46	2-3/8	42-3/4	32	1-1/2	7	.....
42	53	2-5/8	49-1/2	36	1-1/2	7-1/2	.....
48	59-1/2	2-3/4	56	44	1-1/2	7-3/4	.....
54	66-1/4	3	62-3/4	44	1-3/4	.....	10-1/2
60	73	3-1/8	69-1/4	52	1-3/4	.....	10-3/4
72	86-1/2	3-1/2	82-1/2	60	1-3/4	.....	11-1/2
84	99-3/4	3-7/8	95-1/2	64	2	.....	12-3/4
96	113-1/4	4-1/4	108-1/2	68	2-1/4	.....	14

ALL AMERICAN STANDARD CLASS 125 CAST IRON FLANGES HAVE PLAIN FACE

## NOTES\*

BOLTING. Drilling templates are in multiples of four, so that fittings may be made to face in any quarter. Bolt holes shall straddle the center line.

For bolts smaller than 1 3/4 in. the bolt holes shall be drilled 1/8 in. larger in diameter than the nominal size of the bolt. Holes for bolts 1 3/4 in. and larger shall be drilled 1/4 in. larger than nominal diameter of bolts.

Bolts shall be of steel with American Standard Regular Unfinished Square Heads or American Standard Heavy Unfinished Hexagonal Heads and the nuts shall be of steel with American Standard Heavy Hexagonal dimensions, all as specified in

American Standard for Wrench Head Bolts and Nuts and Wrench Openings (ASA B18.2—1933). For bolts 1 3/4 in. in diameter and larger, bolt-studs with a nut on each end are recommended.

Hexagonal nuts for pipe sizes 1 to 48 in. can be conveniently pulled up with open wrenches of minimum design of heads. Hexagonal nuts for pipe sizes 48 to 96 in. can be conveniently pulled up with box wrenches.

All bolts, or bolt-studs if used, and all nuts shall be threaded in accordance with American Standard for Screw Threads (ASA B1.1—1935) Coarse-Thread Series, Class 2 Fit.

## MAXIMUM SIZE OF TAPPED HOLE IN FITTING WITHOUT ADDING BOSS

SIZE OF FITTING.....INCHES	2-3	4-5	6	8	10	12	14-24
SIZE OF TAPPED HOLE...INCHES	3/8	1/2	3/4	1	1-1/4	1-1/2	2

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## PIPE FITTINGS

## GENERAL DIMENSIONS—STRAIGHT SIZES

## Cast Iron Flanged Fittings and Flanges

## AMERICAN STANDARD CLASS 125

## KEY TO TABLE OF DIMENSIONS

AA = Face to Face, Tees and Crosses.  
 A = Center to Face, 46° to 90° Ells, Tees, Crosses and True Y's.  
 B = Center to Face, Long Radius Ells.  
 C = Center to Face, 1° to 45° Ells.  
 D = Face to Face, Laterals.  
 E = Center to Face, Laterals.

F = Center to Face, Laterals.  
 G = Face to Face, Reducers.  
 J = Center to Face, Base Flange.\*  
 K = Diameter of Base Flange\*  
 L = Anchorage bases.  
 M = Center to Face, 45° Long Radius Ells.  
 N = Center to Face, True Y's.†

P = Size of Pipe for Supporting Base Ells. with Round Base Flange.  
 R = Outside Diameter of Flange.  
 S = Overall of Hub and Threads (Min.).  
 T = Thickness of Flange (Min.).  
 V = Metal Thickness, Blind Flanges (Min.).

## SIZE OF ALL FITTINGS LISTED INDICATES NOMINAL INSIDE DIAMETER OF PORT

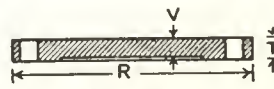
SIZE INCHES	DIAMETER OF FLANGE	WALL THICKNESS	DIMENSIONS IN INCHES													
			AA	A	B	C	D	E	F	G	J*	K*	M	N†	P	
1	4¼	5/16	7	3½	5	1¾	7½	5¾	1¾	...	3½	3½	2½	1¾	¾	
1¼	4⅝	5/16	7½	3¾	5½	2	8	6¼	1¾	...	3⅝	3½	3	1¾	¾	
1½	5	5/16	8	4	6	2¼	9	7	2	...	3¾	4¼	3¼	2	1	
2	6	5/16	9	4½	6½	2½	10½	8	2½	5	4⅞	4⅞	3½	2½	1¼	
2½	7	5/16	10	5	7	3	12	9½	2½	5½	4½	4⅞	4	2½	1¼	
3	7½	3/8	11	5½	7¾	3	13	10	3	6	4⅞	5	4½	3	1½	
3½	8½	7/16	12	6	8½	3½	14½	11½	3	6½	5¼	5	4¾	3	1½	
4	9	1/2	13	6½	9	4	15	12	3	7	5½	6	5¼	3	2	
5	10	1/2	15	7½	10¼	4½	17	13½	3½	8	6¼	7	6	3½	2½	
6	11	9/16	16	8	11½	5	18	14½	3½	9	7	7	6¾	3½	2½	
8	13½	5/8	18	9	14	5½	22	17½	4½	11	8¾	9	8	4½	4	
10	16	3/4	22	11	16½	6½	25½	20½	5	12	9¾	9	9	5	4	
12	19	13/16	24	12	19	7½	30	24½	5½	14	11¼	11	9½	5½	6	
14	21	7/8	28	14	21½	7½	33	27	6	16	12½	11	10	6	6	
16	23½	1	30	15	24	8	36½	30	6½	18	13¾	11	13	6½	6	
18	25	1-1/16	33	16½	26½	8½	39	32	7	19	15	13½	14	7	8	
20	27½	1-1/8	36	18	29	9½	43	35	8	20	16	13½	15	8	8	
24	32	1-1/4	44	22	34	11	49½	40½	9	24	18½	13½	17	9	8	
30	38¾	1-7/16	50	25	41½	15	59	49	10	30	23	16	24	10	10	
36	46	1-5/8	56	28	49	18	77	63	14	36	26	19	29	14	12	
42	53	1-13/16	62	31	56½	21	87	72	15	42	30	23½	35	15	16	
48	59½	2	68	34	64	24	92	76	16	48	34	25	39	16	18	
54	66¼	2-3/16	78	39	71½	27	108	88	20	54	38	27½	42	20	20	
60	73	2-7/16	88	44	79	30	120	96	24	60	42	32	48	24	24	

\*Size and center to face dimension of base are determined by size of largest opening of fitting. These bases are intended for supports in compression and are not to be used for anchors or for supports in tension or shear. When face flange is ordered faced, dimension "J" is reduced by 1/4 inch. Drilling of round face flange will match the template of the flange corresponding to the size of the supporting pipe "P" using only four holes in all cases so placed to miss the ribs. Bases faced and/or drilled only when so ordered.

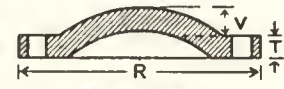
†Applies to straight size True Y's only.



COMPANION  
FLANGE



BLIND FLANGE  
10" AND SMALLER



BLIND FLANGE  
12" AND LARGER

PLANES		10 AND SMALLER										
SIZE.....INCHES		1	1½	1½	2	2½	3	3½	4	5	6	8
DIMENSION	R. INCHES	4-1/4	4-5/8	5	6	7	7-1/2	8-1/2	9	10	11	13-1/2
	S. INCHES	11/16	13/16	7/8	1	1-1/8	1-3/16	1-1/4	1-5/16	1-7/16	1-9/16	1-3/4
	T. INCHES	7/16	1/2	9/16	5/8	11/16	3/4	13/16	15/16	15/16	1	1-1/8
	V. INCHES	3/8	7/16	1/2	9/16	5/8	11/16	3/4	7/8	7/8	15/16	1-1/16
SIZE.....INCHES		10	12	14	16	18	20	24	30	36	42	48
DIMENSION	R. INCHES	16	19	21	23-1/2	25	27-1/2	32	38-3/4	46	53	59-1/2
	S. INCHES	1-15/16	2-3/16	2-1/4	2-1/2	2-11/16	2-7/8	3-1/4	...	...	...	...
	T. INCHES	1-3/16	1-1/4	1-3/8	1-7/16	1-9/16	1-11/16	1-7/8	2-1/8	2-3/8	2-5/8	2-3/4
	V. INCHES	1-1/8	13/16	7/8	1	1-1/16	1-1/8	1-1/4	1-7/16	1-5/8	1-13/16	2

Companion flanges in sizes 14-inch and larger are tapped for O. D. pipe.

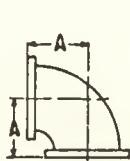
Blind flanges, 19-inches O. D. and larger, are dished with inside radius equal to the port diameter.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

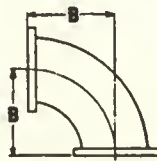
## PIPE FITTINGS

GENERAL DIMENSIONS—STRAIGHT SIZES

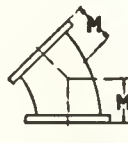
Cast Iron Flanged Fittings—Class 125



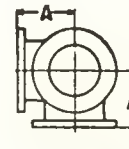
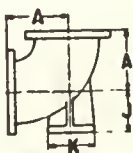
90° ELBOW


LONG RADIUS  
90° ELBOW

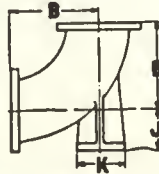
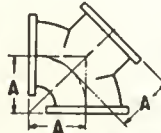
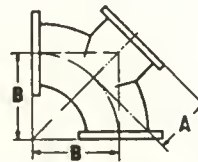
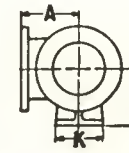
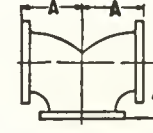
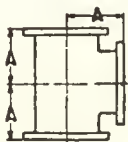

45° ELBOW


LONG RADIUS  
45° ELBOW

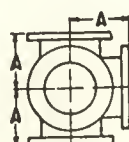
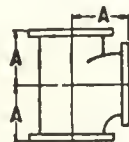
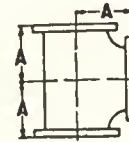
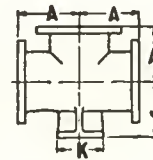
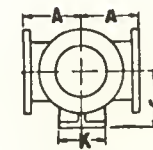
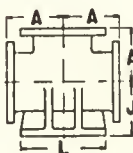
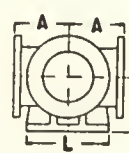
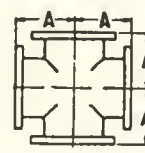

22 1/2° ELBOW


SIDE OUTLET  
ELBOW


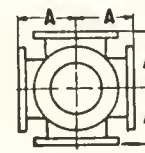
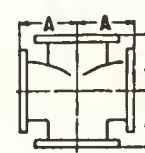
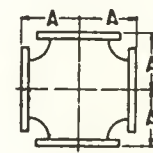
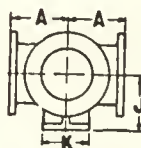
BASE ELBOW


LONG RADIUS  
BASE ELBOW

BACK OUTLET  
ELBOW

BACK OUTLET  
LONG RADIUS ELBOW

SIDE BASE  
ELBOW\*

DOUBLE BRANCH  
ELBOW


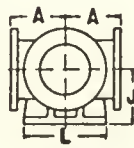
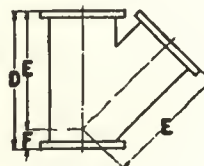
TEE


SIDE OUTLET  
TEE

SINGLE SWEEP  
TEE

DOUBLE  
SWEEP TEE

BOTTOM  
BASE TEE

SIDE BASE  
TEE

BOTTOM ANCHORAGE  
BASE TEE

SIDE ANCHORAGE  
BASE TEE


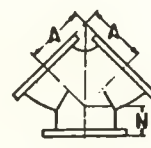
CROSS


SIDE OUTLET  
CROSS

SINGLE SWEEP  
CROSS

DOUBLE SWEEP  
CROSS


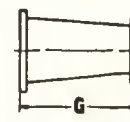
BASE CROSS


ANCHORAGE  
BASE CROSS


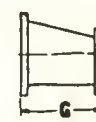
LATERAL



TRUE "Y"



REDUCER


ECCENTRIC  
REDUCER

BASES. Dimensions of regular bases for base elbows and base tees apply to straight and reducing sizes and to long and short body patterns. Size of base is determined by size of larger opening.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## PIPE FITTINGS

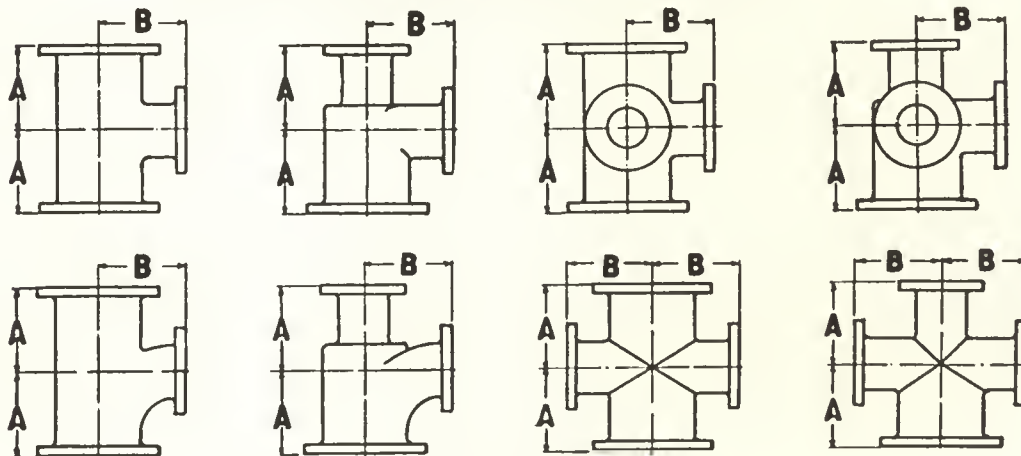
GENERAL DIMENSIONS—SHORT BODY PATTERN

## Cast Iron Flanged Reducing Fittings

AMERICAN STANDARD CLASS 125

## REDUCING ELBOWS

Reducing sizes of elbows, side outlet elbows, and double branch elbows have the same dimension center to face as straight size fittings corresponding to the size of the larger opening.



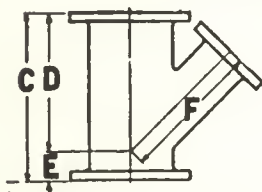
## TEE OR CROSSES

Sizes 16" and smaller have same center to face dimensions as straight size fittings -

Size.....Inches	18	20	24	30	36	42	48
Size of outlet and smaller*.....Inches	12	14	16	20	24	28	30
AA - Face to face, run.....Inches	26	28	30	36	40	46	52
A - Center to face, run.....Inches	13	14	15	18	20	23	26
B - Center to face, outlet.....Inches	15½	17	19	23	26	30	34

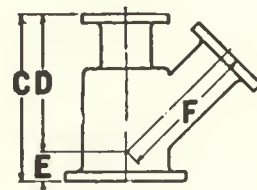
Bull-head tees (tees with outlet larger than the run) have same dimensions as a straight size tee of the size of the outlet.

Side outlet tees with outlet at 90 degrees or any other angle, straight to reducing, have same dimensions as regular tees having same reductions. On a side outlet tee, the larger of the two side openings governs the center to face dimension "B". Side outlet crosses are determined in the same manner as side outlet tees.



## WHEN ORDERING

Reducing fittings should be ordered by the designation of the openings in their proper sequence.



## LATERALS

Sizes 16" and smaller have same center to face dimensions as straight size fittings -

Size.....Inches	18	20	24	30
Size of branch and smaller*.....Inches	8	10	12	14
C - Face to face, run.....Inches	26	28	32	39
D - Center to face, run.....Inches	25	27	31½	39
E - Center to face, run.....Inches	1	1	½	0
F - Center to face, branch.....Inches	27½	29½	34½	42

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## PIPE FITTINGS

## Theoretical Weights of Cast Iron Flanged Fittings

AMERICAN STANDARD CLASS 250

## 90° ELBOW—STRAIGHT SIZES

SIZE.....INCHES	1	1½	1½	2	2½	3	3½	4	5	6
WEIGHT.....POUNDS	9	11	16	20	30	40	49	65	87	115
SIZE.....INCHES	8	10	12	14	16	18	20	24	30	...
WEIGHT.....POUNDS	185	290	410	560	750	970	1220	1840	3120	...

## 90° ELBOWS—REDUCING SIZES

SIZE.....INCHES	3x1½	3x2	3x2½	3½x2	3½x3	4x2	4x2½	4x3	4x3½	5x2½	5x3
WEIGHT.....POUNDS	28	30	35	35	44	43	48	52	56	60	65
SIZE.....INCHES	5x4	6x3	6x3½	6x4	6x5	8x4	8x5	8x6	10x5	10x6	10x8
WEIGHT.....POUNDS	78	82	89	93	100	130	140	155	190	210	240
SIZE.....INCHES	12x6	12x8	12x10	14x8	14x10	14x12	16x8	16x10	16x12	16x14	18x10
WEIGHT.....POUNDS	280	300	360	390	440	490	470	530	600	670	650
SIZE.....INCHES	18x12	18x14	18x16	20x12	20x14	20x16	20x18	24x12	24x16	24x18	24x20
WEIGHT.....POUNDS	710	790	870	840	930	1020	1120	1150	1350	1460	1590

## 90° LONG RADIUS ELBOWS—STRAIGHT SIZES

SIZE.....INCHES	1	1½	1½	2	2½	3	3½	4	5	6
WEIGHT.....POUNDS	10	13	18	23	34	44	55	72	98	135
SIZE.....INCHES	8	10	12	14	16	18	20	24	30	...
WEIGHT.....POUNDS	220	350	510	710	960	1260	1630	2470	4290	...

## 45° ELBOWS—STRAIGHT SIZES

SIZE.....INCHES	1	1½	1½	2	2½	3	3½	4	5	6
WEIGHT.....POUNDS	7	10	15	18	28	35	44	58	76	105
SIZE.....INCHES	8	10	12	14	16	18	20	24	30	...
WEIGHT.....POUNDS	155	240	340	440	620	780	960	1430	2230	...

## SIDE OUTLET ELBOWS—STRAIGHT SIZES

SIZE.....INCHES	1	1½	1½	2	2½	3	3½	4	5	6
WEIGHT.....POUNDS	13	17	24	30	43	55	71	94	125	170
SIZE.....INCHES	8	10	12	14	16	18	20	24	30	...
WEIGHT.....POUNDS	260	400	560	790	1040	1330	1670	2490	4150	...

## TEES—STRAIGHT SIZES

SIZE.....INCHES	1	1½	1½	2	2½	3	3½	4	5	6
WEIGHT.....POUNDS	14	18	25	32	46	58	76	99	135	180
SIZE.....INCHES	8	10	12	14	16	18	20	24	30	...
WEIGHT.....POUNDS	280	430	620	870	1150	1490	1880	2800	4740	...

## SIDE OUTLET TEES—STRAIGHT SIZES

SIZE.....INCHES	1	1½	1½	2	2½	3	3½	4	5	6
WEIGHT.....POUNDS	18	23	32	41	58	74	94	130	170	230
SIZE.....INCHES	8	10	12	14	16	18	20	24	30	...
WEIGHT.....POUNDS	350	540	770	1090	1430	1840	2320	3450	5760	...

## NOTE

All weights listed are for fittings faced and drilled, based upon minimum thickness requirements and dimensions as given in tables, without allowances for variation. Cast iron is considered to weigh 0.26 pound per cubic inch.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## PIPE FITTINGS

Theoretical Weights of Cast Iron Flanged Fittings  
AMERICAN STANDARD CLASS 125

## TEES—REDUCING SIZES

SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS
3 x 3 x 2½	36	6 x 6 x 3	89	14 x 14 x 10	480
3 x 3 x 2	33	6 x 5 x 6	100	14 x 14 x 8	460
3 x 3 x 1½	31	6 x 5 x 5	95	14 x 12 x 14	510
3 x 2½ x 3	35	6 x 5 x 4	92	14 x 12 x 12	490
3 x 2½ x 2½	34	6 x 5 x 3	84	14 x 12 x 10	460
3 x 2½ x 2	31	6 x 4 x 6	98	14 x 12 x 8	440
3 x 2½ x 1½	29	6 x 4 x 5	93	14 x 10 x 14	490
3 x 2 x 3	33	6 x 4 x 4	89	14 x 10 x 12	470
3 x 2 x 2½	32	6 x 4 x 3	82	14 x 10 x 10	450
3 x 2 x 2	29	6 x 3 x 6	92	14 x 10 x 8	420
3 x 2 x 1½	27	6 x 3 x 5	86	14 x 8 x 14	480
3 x 1½ x 3	32	6 x 3 x 4	83	14 x 8 x 12	460
3 x 1½ x 2½	30	6 x 3 x 3	76	14 x 8 x 10	430
3 x 1½ x 2	27	8 x 8 x 6	150	14 x 8 x 8	410
3 x 1½ x 1½	25	8 x 8 x 5	145	16 x 16 x 14	670
3½ x 3½ x 3	46	8 x 8 x 4	145	16 x 16 x 12	650
3½ x 3½ x 2½	44	8 x 6 x 8	155	16 x 16 x 10	620
3½ x 3½ x 2	42	8 x 6 x 6	140	16 x 16 x 8	610
4 x 4 x 3½	60	8 x 6 x 5	135	16 x 14 x 16	680
4 x 4 x 3	57	8 x 6 x 4	130	16 x 14 x 14	650
4 x 4 x 2½	55	8 x 5 x 8	150	16 x 14 x 12	630
4 x 4 x 2	53	8 x 5 x 6	135	16 x 14 x 10	600
4 x 3 x 4	57	8 x 5 x 5	130	16 x 14 x 8	580
4 x 3 x 3	50	8 x 5 x 4	125	16 x 12 x 16	670
4 x 3 x 2½	49	8 x 4 x 8	150	16 x 12 x 14	640
4 x 3 x 2	46	8 x 4 x 6	135	16 x 12 x 12	620
4 x 2½ x 4	56	8 x 4 x 5	130	16 x 12 x 10	590
4 x 2½ x 3	49	8 x 4 x 4	125	16 x 12 x 8	570
4 x 2½ x 2½	47	10 x 10 x 8	250	16 x 10 x 16	650
4 x 2½ x 2	45	10 x 10 x 6	240	16 x 10 x 14	620
4 x 2 x 4	54	10 x 10 x 5	230	16 x 10 x 12	600
4 x 2 x 3	47	10 x 8 x 10	260	16 x 10 x 10	570
4 x 2 x 2½	45	10 x 8 x 8	240	16 x 10 x 8	550
4 x 2 x 2	43	10 x 8 x 6	220	16 x 8 x 16	640
5 x 5 x 4	78	10 x 6 x 10	250	16 x 8 x 14	610
5 x 5 x 3½	74	10 x 6 x 8	230	16 x 8 x 12	580
5 x 5 x 3	70	10 x 6 x 6	210	16 x 8 x 10	560
5 x 5 x 2½	68	12 x 12 x 10	360	16 x 8 x 8	540
5 x 4 x 5	78	12 x 12 x 8	340	18 x 18 x 16	860
5 x 4 x 4	75	12 x 12 x 6	320	18 x 18 x 14	820
5 x 4 x 3	68	12 x 10 x 12	370	18 x 18 x 12	660
5 x 4 x 2½	66	12 x 10 x 10	340	18 x 18 x 10	640
5 x 3 x 5	72	12 x 10 x 8	320	20 x 20 x 18	1060
5 x 3 x 4	68	12 x 10 x 6	310	20 x 20 x 16	1040
5 x 3 x 3	61	12 x 8 x 12	350	20 x 20 x 14	840
5 x 3 x 2½	59	12 x 8 x 10	330	20 x 20 x 12	820
5 x 2½ x 5	70	12 x 8 x 8	310	20 x 20 x 10	790
5 x 2½ x 4	67	12 x 8 x 6	300	24 x 24 x 20	1640
5 x 2½ x 3	60	12 x 6 x 12	340	24 x 24 x 18	1600
5 x 2½ x 2½	58	12 x 6 x 10	320	24 x 24 x 16	1170
6 x 6 x 5	99	12 x 6 x 8	300	24 x 24 x 14	1140
6 x 6 x 4	96	12 x 6 x 6	280	24 x 24 x 12	1110
6 x 6 x 3½	92	14 x 14 x 12	500	.....	....

## CROSSES—STRAIGHT SIZES—NOT RIBBED

SIZE.....INCHES	1	1½	1½	2	2½	3	3½	4	5	6	8
WEIGHT.....POUNDS	11	15	19	28	39	48	63	82	105	135	210
SIZE.....INCHES	10	12	14	16	18	20	24	30	36	42	48
WEIGHT.....POUNDS	330	470	850	850	1040	1330	2080	3210	4750	6710	8740

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



**PIPE FITTINGS**  
**Theoretical Weights of Cast Iron Flanged Fittings**  
 AMERICAN STANDARD CLASS 250  
**CROSSES—REDUCING SIZES**

SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS
3 x3 x2½x2½	72	6x 6x 3½x 3½	175	16x16x10x10	1120
3 x3 x2 x2	63	6x 6x 3 x 3	170	16x16x 8x 8	1040
3 x3 x1½x1½	59	8x 8x 6 x 6	310	18x18x16x16	1710
3½x3½x3 x3	89	8x 8x 5 x 5	280	18x18x14x14	1590
3½x3½x2½x2½	82	8x 8x 4 x 4	270	18x18x12x12	1320
3½x3½x2 x2	74	10x10x 8 x 8	470	18x18x10x10	1210
4 x4 x3½x3½	115	10x10x 6 x 6	420	20x20x18x18	2170
4 x4 x3 x3	110	10x10x 5 x 5	400	20x20x16x16	2030
4 x4 x2½x2½	100	12x12x10 x10	690	20x20x14x14	1680
4 x4 x2 x2	91	12x12x 8 x 8	620	20x20x12x12	1580
5 x5 x4 x4	155	12x12x 6 x 6	570	20x20x10x10	1490
5 x5 x3½x3½	145	14x14x12 x12	990	24x24x20x20	3080
5 x5 x3 x3	135	14x14x10 x10	900	24x24x18x18	2920
5 x5 x2½x2½	125	14x14x 8 x 8	820	24x24x16x16	2380
6 x6 x5 x5	200	16x16x14 x14	1320	24x24x14x14	2270
6 x6 x4 x4	190	16x16x12 x12	1210	24x24x12x12	2150

**LATERALS—STRAIGHT SIZES—NOT RIBBED**

Size.....Inches	1	1¼	1½	2	2½	3	3½	4	5
Weight.....Pounds	15	20	30	37	57	73	91	120	165
Size.....Inches	6	8	10	12	14	16	18	20	24
Weight.....Pounds	230	360	570	820	1180	1610	2100	2670	4020

**LATERALS—REDUCING ON OUTLET—NOT RIBBED**

SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS
3 x3 x2½	68	6x 6x 3½	185	16x16x10	1270
3 x3 x2	60	6x 6x 3	180	16x16x 8	1190
3 x3 x1½	58	8x 8x 6	320	18x18x16	1870
3½x3½x3	85	8x 8x 5	300	18x18x14	1760
3½x3½x2½	80	8x 8x 4	290	18x18x12	1660
3½x3½x2	73	10x10x 8	510	18x18x10	1580
4 x4 x3½	110	10x10x 6	470	20x20x18	2390
4 x4 x3	105	10x10x 5	450	20x20x16	2260
4 x4 x2½	98	12x12x10	750	20x20x14	2140
4 x4 x2	92	12x12x 8	690	20x20x12	2040
5 x5 x4	145	12x12x 6	640	20x20x10	1620
5 x5 x3½	140	14x14x12	1050	24x24x20	3520
5 x5 x3	135	14x14x10	980	24x24x18	3350
5 x5 x2½	130	14x14x 8	910	24x24x16	3200
6 x6 x5	210	16x16x14	1440	24x24x14	3100
6 x6 x4	195	16x16x12	1350	24x24x12	2470

**REDUCERS**

SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS
3 x2½	29	5x2½	50	12x10	290	18x14	640
3 x2	25	6x5	85	12x 8	250	18x12	580
3 x1½	24	6x4	77	12x 6	220	18x10	520
3½x3	36	6x3½	71	14x12	410	20x18	880
3½x2	29	6x3	67	14x10	360	20x16	800
4 x3½	48	8x6	130	14x 8	320	20x14	730
4 x3	44	8x5	115	16x14	550	20x12	660
4 x2½	40	8x4	105	16x12	490	24x20	1260
4 x2	36	10x8	190	16x10	440	24x18	1170
5 x4	63	10x6	170	16x 8	390	24x16	1070
5 x3	54	10x5	155	18x16	670	24x12	920

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## PIPE FITTINGS

## GENERAL DIMENSIONS—STRAIGHT SIZES

## Cast Iron Flanged Fittings and Flanges

## AMERICAN STANDARD CLASS 250

AA = Face to Face, Tees and Crosses.  
 A = Center to Face, 46° to 90° Ells, Tees, Crosses and True Y's.  
 B = Center to Face, Long Radius Ells.  
 C = Center to Face, 1° to 45° Ells.  
 D = Face to Face, Laterals.  
 E = Center to Face, Laterals.

F = Center to Face, Laterals.  
 G = Face to Face, Reducers.  
 J = Center to Face, Base Flange.\*  
 K = Diameter of Base Flange\*  
 L = Anchorage bases.  
 M = Center to Face, 45° Long Radius Ells.  
 N = Center to Face, True Y's.†

P = Size of Pipe for Supporting Base Ells. with Round Base Flange.  
 R = Outside Diameter of Flange.  
 S = Overall of Hub and Threads (Min.).  
 T = Thickness of Flange (Min.).  
 V = Metal Thickness, Blind Flanges (Min.).  
 W = Diameter of Raised Face

## ALL DIMENSIONS ARE IN INCHES

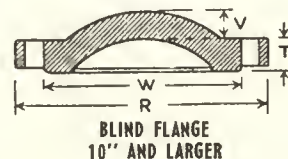
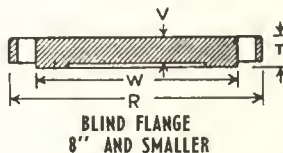
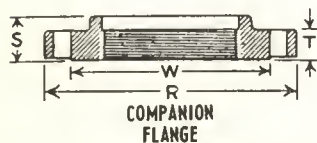
Size of all fittings listed indicates nominal inside diameter of port

SIZE INCHES	DIAMETER OF FLANGE	WALL THICKNESS	AA	A	B	C	D	DIMENSIONS IN INCHES			J*	K*	M	N†	P
								E	F	G					
1	4-7/8	7/16	8	4	5	2	8½	6½	2		3-3/4	4	2¾	2	¾
1¼	5-1/4	7/16	8½	4¼	5½	2½	9½	7¼	2¼		4	4	3½	2¼	¾
1½	6-1/8	7/16	9	4½	6	2¾	11	8½	2½		4-1/8	4-7/8	3¾	2½	1
2	6-1/2	7/16	10	5	6½	3	11½	9	2½	5	4-1/2	5-1/4	4	2½	1¼
2½	7-1/2	1/2	11	5½	7	3½	13	10½	2½	5½	4-3/4	5-1/4	4½	2½	1½
3	8-1/4	9/16	12	6	7¾	3¾	14	11	3	6	5-1/4	6-1/8	5	3	1½
3½	9	9/16	13	6½	8½	4	15½	12½	3	6½	5-5/8	6-1/8	5¼	3	1½
4	10	5/8	14	7	9	4½	16½	13½	3	7	6	6-1/2	5¾	3	2
5	11	11/16	16	8	10¼	5	18½	15	3½	8	6-3/4	7-1/2	6½	3½	2½
6	12-1/2	3/4	17	8½	11½	5½	21½	17½	4	9	7-1/2	7-1/2	7¼	4	2½
8	15	13/16	20	10	14	6	25½	20½	5	11	9	10	8½	5	4
10	17-1/2	15/16	23	11½	16½	7	29½	24	5½	12	10-1/2	10	9½	5½	4
12	20-1/2	1	26	13	19	8	33½	27½	6	14	12	12-1/2	10	6	6
14	23	1-1/8	30	15	21½	8½	37½	31	6½	16	13½	12-1/2	11	6½	6
16	25-1/2	1-1/4	33	16½	24	9½	42	34½	7½	18	14-3/4	12-1/2	14½	7½	6
18	28	1-3/8	36	18	26½	10	45½	37½	8	19	16-1/4	15	15½	8	8
20	30-1/2	1-1/2	39	19½	29	10½	49	40½	8½	20	17-7/8	15	16	8½	8
24	36	1-5/8	45	22½	34	12	57½	47½	10	24	20-3/4	17-1/2	18	10	10

\*Size and center to face dimension of base are determined by size of largest opening of fitting. These bases are intended for supports in compression and are not to be used for anchors or for supports in tension or shear. When face flange is ordered faced, dimension "J" is reduced by 1¼-inch. Drilling of round face flange will match the template of the flange corresponding to the size of the supporting pipe "P" using only four holes in all cases so placed to miss the ribs. Bases faced and/or drilled only when so ordered.

†Applies to straight size True Y's only.

## FLANGES



Size.....Inches	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5
Dimensions	R.....Inches	4-7/8	5-1/4	6-1/8	6-1/2	7-1/2	8-1/4	9	10
	S.....Inches	7/8	1	1-1/8	1-1/4	1-7/16	1-9/16	1-5/8	1-3/4
	T.....Inches	11/16	3/4	13/16	7/8	1	1-1/8	1-3/16	1-1/4
	V.....Inches	5/8	11/16	3/4	13/16	15/16	1-1/16	1-1/8	1-3/16
	W.....Inches	2-11/16	3-1/16	3-9/16	4-3/16	4-15/16	5-11/16	6-5/16	6-15/16
Size.....Inches	6	8	10	12	14	16	18	20	24
Dimensions	R.....Inches	12-1/2	15	17-1/2	20-1/2	23	25-1/2	28	30-1/2
	S.....Inches	2	2-3/16	2-3/8	2-9/16	2-11/16	2-7/8	3-1/8	3-5/16
	T.....Inches	1-7/16	1-5/8	1-7/8	2	2-1/8	2-1/4	2-3/8	2-1/2
	V.....Inches	1-3/8	1-9/16	15/16	1	1-1/8	1-1/4	1-3/8	1-1/2
	W.....Inches	9-11/16	11-15/16	14-1/16	16-7/16	18-15/16	21-1/16	23-5/16	25-9/16

Companion flanges in sizes 14-inch and larger are tapped for O.D. pipe.

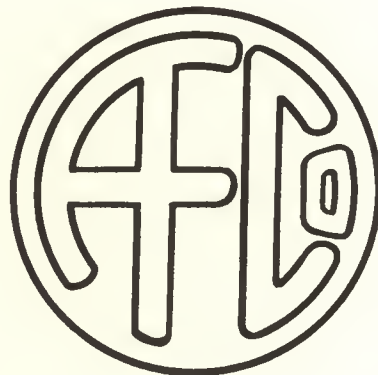
Blind flanges, 17½ inches O.D. and larger, are dished with inside radius equal to the port diameter.

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



**PRICES AND  
DIMENSIONS**

**CAST IRON  
BELL AND SPIGOT  
FITTINGS**





## CAST IRON PRESSURE FITTINGS

CLASS D-173 LBS. PRESSURE

LOS ANGELES AND A.W.W.A. STANDARDS

The cast iron pipe fittings listed in the following pages are either of the "American Water Works Ass'n" (A. W. W. A.) standard, or the "Los Angeles" standard or special fittings that conform in basic respects to one of these. The wall thickness and pressure rating of all are class "D", 173 pounds water working pressure. The "Los Angeles" standard, sometimes referred to as "short pattern" is a modification of the "A. W. W. A." or "long pattern". This applies to Tees, Crosses, Reducers, Offsets and 90 degree bends. Some fittings are made in one pattern only.

This list includes practically all standard fittings from 2" to 24" in diameter and numerous specials. Special fittings of all kinds available. Prices and dimensions on request. Most standard items carried in stock. Prices subject to discount. Weight estimated. All fittings F. O. B. Los Angeles.

ALL THE FOLLOWING PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

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### ABBREVIATIONS

To conserve space and simplify description certain abbreviations are used. Where used in this list they are to be interpreted as follows:

B - Bell  
S - Spigot  
F - Flange

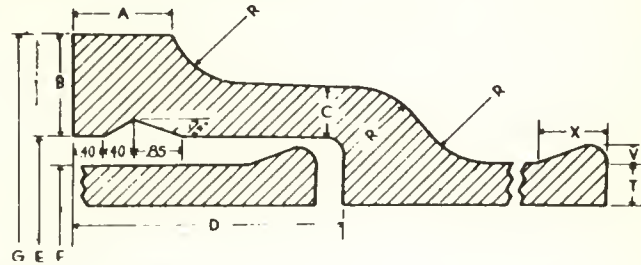
B/B - Bell and Bell  
A/B - All Bell  
B/S - Bell and Spigot

SEB - Small End Bell  
LEB - Large End Bell  
BSB - Bell and Spigot and Bell





## BELL AND SPIGOT DIMENSIONS

CAST IRON FITTINGS  
CLASS D

## LOS ANGELES STANDARD

SIZE	A	B	C	D	E	F	G	T	V	X	R
3	1.25	1.30	.65	4.00	4.76	3.96	7.36	.48	.187	.75	1.00
4	1.50	1.30	.65	4.00	5.80	5.00	8.40	.52	.187	.75	1.00
6	1.50	1.40	.70	4.00	7.90	7.10	10.70	.55	.187	.75	1.05
8	1.50	1.50	.75	4.00	10.10	9.05	13.10	.60	.25	1.00	1.10
10	1.50	1.60	.80	4.00	12.20	11.10	15.40	.68	.25	1.00	1.15
12	1.50	1.70	.85	4.00	14.30	13.20	17.70	.75	.25	1.00	1.20
14	1.50	1.80	.90	4.00	16.45	15.30	20.05	.82	.25	1.00	1.30
16	1.75	1.90	1.00	4.00	18.80	17.40	22.60	.89	.25	1.00	1.50
18	1.75	2.10	1.05	4.00	20.92	19.50	25.12	.96	.25	1.00	1.55
20	1.75	2.30	1.15	4.00	23.06	21.60	27.66	1.03	.25	1.00	1.65
24	2.00	2.50	1.25	4.00	27.32	25.80	32.32	1.16	.25	1.00	1.75
30	2.00	2.60	1.32	4.50	33.40	32.00	38.60	1.37	.25	1.00	1.82
36	2.00	3.10	1.60	4.50	39.70	38.30	45.90	1.58	.25	1.00	2.10

## A. W. W. A. STANDARD

SIZE	A	B	C	D	E	F	G	T	V	X	R
3	1.25	1.30	.65	3.50	4.66	3.96	7.26	.48	.187	.75	1.00
4	1.50	1.30	.65	4.00	5.70	5.00	8.30	.52	.187	.75	1.00
6	1.50	1.40	.70	4.00	7.80	7.10	10.60	.55	.187	.75	1.05
8	1.50	1.50	.75	4.00	10.00	9.30	13.00	.60	.25	1.00	1.10
10	1.50	1.60	.80	4.00	12.10	11.40	15.30	.68	.25	1.00	1.15
12	1.50	1.70	.85	4.00	14.20	13.50	17.60	.75	.25	1.00	1.20
14	1.50	1.80	.90	4.00	16.45	15.65	20.05	.82	.25	1.00	1.30
16	1.75	1.90	1.00	4.00	18.80	17.80	22.60	.89	.25	1.00	1.50
18	1.75	2.10	1.05	4.00	20.92	19.92	25.12	.96	.25	1.00	1.55
20	1.75	2.30	1.15	4.00	23.06	22.06	27.66	1.03	.25	1.00	1.65
24	2.00	2.50	1.25	4.00	27.32	26.32	32.32	1.16	.25	1.00	1.75
30	2.00	3.00	1.50	4.50	33.74	32.74	39.74	1.37	.25	1.00	1.82
36	2.00	3.40	1.80	4.50	40.16	39.16	46.96	1.58	.25	1.00	2.10

## TWO INCH STANDARD

2	1.12	.93	.56	3.00	3.12	2.62	5.00	.25	.15	.31	.75
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## BELL DIAMETERS (E) FOR USE WITH TRANSITE PIPE (OLD STYLE)

SIZE	2	3	4	6	8	10	12	14	16	18	20	24	30	36
50	3.48	4.72	5.66	7.72	9.84	11.88	13.96	16.04	18.32	20.38	22.34	26.58	33.00	39.38
100	3.62	4.88	5.96	8.02	10.04	12.18	14.36	16.56	18.96	21.14	22.46	27.70	34.28	40.86
150	3.72	4.98	6.06	8.24	10.38	12.70	14.96	17.26	19.70	21.98	24.26	28.84	35.78	42.80
200	3.80	5.06	6.20	8.50	10.82	13.20	15.48	17.88	20.50	22.94	25.38	30.16	37.44	44.68

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## FLANGE DIMENSIONS

ALL FLANGE FITTINGS IN THIS CATALOG ARE 125 POUND STANDARD UNLESS ORDERED OTHERWISE, IN WHICH CASE THE PRICE VARIES

### 125 POUND STANDARD

SIZE	DIAMETER OF FLANGE	THICKNESS OF FLANGE	DIAMETER OF BOLT CIRCLE	NUMBER OF BOLTS	SIZE OF BOLTS	SIZE OF BOLT HOLES	LENGTH OF BOLTS
2	6	5/8	4-3/4	4	5/8	3/4	2
3	7-1/2	3/4	6	4	5/8	3/4	2-1/4
4	9	15/16	7-1/2	8	5/8	3/4	2-3/4
5	10	15/16	8-1/2	8	3/4	7/8	2-3/4
6	11	1	9-1/2	8	3/4	7/8	3
8	13-1/2	1-1/8	11-3/4	8	3/4	7/8	3-1/4
10	16	1-3/16	14-1/4	12	7/8	1	3-1/2
12	19	1-1/4	17	12	7/8	1	3-1/2
14	21	1-3/8	18-3/4	12	1	1-1/8	4
16	23-1/2	1-7/16	21-1/4	16	1	1-1/8	4
18	25	1-9/16	22-3/4	16	1-1/8	1-1/4	4-1/2
20	27-1/2	1-11/16	25	20	1-1/8	1-1/4	4-3/4
24	32	1-7/8	29-1/2	20	1-1/4	1-3/8	5-1/4
30	38-3/4	2-1/8	36	28	1-1/4	1-3/8	5-3/4
36	46	2-3/8	42-3/4	32	1-1/2	1-5/8	6-1/2

### 250 POUND STANDARD (Extra Heavy)

SIZE	DIAMETER OF FLANGE	THICKNESS OF FLANGE	DIAMETER OF RAISED FACE	DIAMETER OF BOLT CIRCLE	NUMBER OF BOLTS	SIZE OF BOLTS	SIZE OF BOLT HOLES	LENGTH OF BOLTS
2	6-1/2	7/8	3 5/8	5	8	5/8	3/4	3
3	8-1/4	1-1/8	5	6-5/8	8	3/4	7/8	3-1/4
4	10	1-1/4	6-8/16	7-7/8	8	3/4	7/8	3-1/2
5	11	1-3/8	7-5/16	9-1/4	8	3/4	7/8	3-3/4
6	12-1/2	1-7/16	8-1/2	10-5/8	12	3/4	7/8	3-3/4
8	15	1-5/8	10-5/8	13	12	7/8	1	4-1/4
10	17-1/2	1-7/8	12-3/4	15-1/4	16	1	1-1/8	5
12	20-1/2	2	15	17-3/4	16	1-1/8	1-1/4	5-1/4
14	23	2-1/8	16-1/4	20-1/4	20	1-1/8	1-1/4	5-1/2
16	25-1/2	2-1/4	18-1/2	22-1/2	20	1-1/4	1-3/8	6
18	28	2-3/8	21	24-3/4	24	1-1/4	1-3/8	6-1/4
20	30-1/2	2-1/2	23	27	24	1-1/4	1-3/8	6-1/2
24	36	2-3/4	27-1/4	32	24	1-1/2	1-5/8	7-1/2
30	43	3	37-5/16	39-1/4	28	1-3/4	2	8-1/4
36	50	3-3/8	43-15/16	46	32	2	2-1/4	9-1/4

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## 90° BENDS

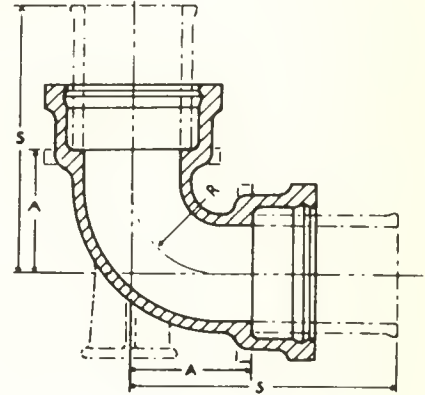
90° (1/4) BENDS ARE MADE IN TWO PATTERNS.  
REDUCING SIZES ARE AVAILABLE AT SLIGHT AD-  
DITIONAL COST. ANCHOR LUGS ARE FURNISHED  
WHEN REQUESTED.

FLANGED FITTING PRICES ON REQUEST

## ABBREVIATIONS

A/B - All bell      F/F - Flanged  
B/S - Bell x spigot      F/S - Flange x spigot  
S/S - Spigot x spigot      F/B - Flange x bell.

WITHOUT BASE



## 90° (1/4) BENDS—LOS ANGELES STANDARD

SIZE	DIMENSION IN INCHES			WEIGHT IN POUNDS						PRICE					
	A	S	R	A/B	B/S	S/S	F/F	F/S	F/B	A/B	B/S	S/S	F/F	F/S	F/B
3	6.00	15.00	5.00	64	58	52	42	47	53	14.08	12.76	16.90			
4	7.00	16.00	6.00	80	70	60	56	58	68	17.60	15.40	21.10			
6	8.25	17.00	7.25	110	105	100	72	86	91	22.00	21.00	28.00			
8	9.50	20.00	8.50	190	180	170	134	152	162	38.00	36.00	47.60			
10	10.75	23.00	9.75	265	265	265	208	241	241	53.00	53.00	74.20			
12	12.25	25.00	11.00	350	350	350	280	320	332	70.00	70.00	98.00			
14	13.00	25.00	11.50	480	480	480	380	430	430	96.00	96.00	134.40			
16	14.50	27.00	13.00	695	720	745	600	677	652	139.00	144.00	208.60			
18	16.25	28.00	14.50	822	840	858	684	771	753	164.40	168.00	240.24			
20	18.00	30.00	16.00	985	991	997	813	905	899	197.00	198.20	279.16			
24	22.25	34.00	20.00	1575	1595	1615	1350	1506	1486	315.00	319.00	452.20			

## 90° (1/4) BENDS—A. W. W. A. STANDARD

SIZE	DIMENSION IN INCHES			WEIGHT IN POUNDS						PRICE					
	A	S	R	A/B	B/S	S/S	F/F	F/S	F/B	A/B	B/S	S/S	F/F	F/S	F/B
3	16.00	24.00	16.00	73	65	57	62	60	62	16.06	14.30	18.75			
4	16.00	24.00	16.00	94	82	70	70	70	82	20.68	18.04	24.50			
6	16.00	24.00	16.00	140	130	120	102	111	121	28.00	26.00	33.60			
8	16.00	26.00	16.00	211	200	139	151	170	183	42.20	40.00	38.92			
10	16.00	28.00	16.00	280	278	276	211	243	256	56.00	55.60	77.28			
12	16.00	28.00	16.00	366	366	366	287	326	348	73.20	73.20	102.48			
14	18.00	30.00	18.00	504	504	504	388	446	454	100.80	100.80	141.12			
16	24.00	36.00	24.00	730	750	770	602	686	687	146.00	150.00	215.60			
18	24.00	36.00	24.00	862	888	914	706	810	793	172.40	177.60	255.92			
20	24.00	36.00	24.00	1064	1070	1076	853	964	978	212.80	214.00	301.28			
24	30.00	42.00	30.00	1623	1656	1689	1377	1533	1534	324.60	331.20	472.92			

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## BASE BENDS

SAME DIMENSIONS AS BENDS WITHOUT BASE  
FLANGED FITTING PRICES ON REQUEST

### BASE BENDS 90° LOS ANGELES STANDARD

SIZE	WEIGHT IN POUNDS						PRICE					
	A/B	B/S	S/S	F/F	F/S	F/B	A/B	B/S	S/S	F/F	F/S	F/B
3	82	76	70	60	65	71	18.86	17.48	19.60			
4	105	95	85	81	83	93	23.10	20.90	23.80			
6	150	145	140	112	126	150	37.50	36.25	39.20			
8	255	245	235	199	217	227	63.75	61.25	65.80			
10	339	339	339	290	315	315	84.75	84.75	94.92			
12	441	441	441	405	423	423	110.25	110.25	123.48			
14	592	592	592	492	542	542	148.00	148.00	165.76			
16	827	852	877	741	809	784	206.75	213.00	245.56			
18	995	1013	1031	857	944	926	248.75	253.25	288.68			
20	1149	1155	1161	977	1069	1063	287.25	288.75	325.08			
24	1767	1787	1807	1589	1689	1678	441.75	446.75	505.96			

### BASE BENDS 90° A. W. W. A. STANDARD

SIZE	WEIGHT IN POUNDS						PRICE					
	A/B	B/S	S/S	F/F	F/S	F/B	A/B	B/S	S/S	F/F	F/S	F/B
3	91	83	75	80	78	80	20.93	19.09	21.00			
4	119	107	95	95	95	107	26.18	23.54	26.60			
6	180	170	160	142	151	161	45.00	42.50	44.80			
8	276	265	254	216	235	248	69.00	66.25	71.12			
10	354	352	350	285	317	330	88.50	88.00	98.00			
12	457	457	457	421	439	439	114.25	114.25	127.96			
14	616	616	616	500	558	566	154.00	154.00	172.48			
16	862	882	902	776	818	819	215.50	220.50	252.56			
18	1035	1061	1087	879	983	966	258.75	265.25	304.36			
20	1228	1234	1240	1017	1128	1142	307.00	308.50	347.20			
24	1815	1848	1881	1637	1725	1726	453.75	462.00	526.68			

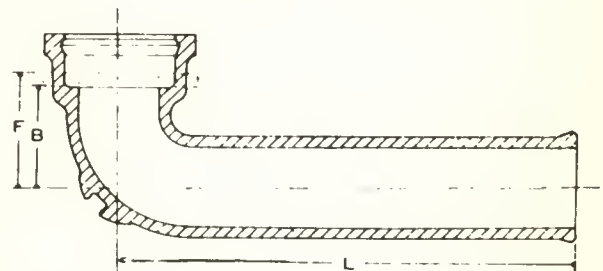
ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS. UNLESS OTHERWISE NOTED

## BENDS

FLANGED FITTING PRICES ON REQUEST

### 90° (1/4) EXTENSION BENDS

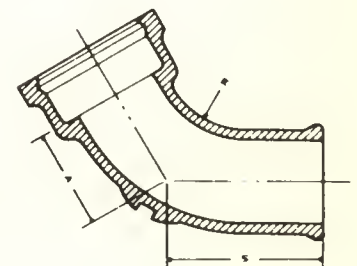
SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS		PRICE	
	L	F	B	B/S	F/S	B/S	F/S
4	36	6.70	5.50	105	86	26.25	
4	48	6.70	5.50	128	108	32.00	
4	60	6.70	5.50	150	131	37.50	
4	72	6.70	5.50	176	154	44.00	
6	36	9.12	6.75	192	186	48.00	
6	48	9.12	6.75	227	221	56.75	
6	60	9.12	6.75	262	256	65.50	
6	72	9.12	6.75	298	292	74.50	
8	36	11.00	8.00	272	241	68.00	
8	48	11.00	8.00	323	292	80.75	
8	60	11.00	8.00	374	343	93.50	
8	72	11.00	8.00	426	395	106.50	
10	36	10.75	10.75	338	304	84.50	
10	48	10.75	10.75	409	375	102.25	
10	60	10.75	10.75	480	446	120.00	
10	72	10.75	10.75	552	518	138.00	
12	36	12.25	12.25	445	406	111.25	
12	48	12.25	12.25	539	500	134.75	
12	60	12.25	12.25	632	593	158.00	
12	72	12.25	12.25	726	687	181.50	



Extension bends available flange and spigot, or bell and spigot. Other types and lengths available on special order.

### 60° (1/6) BEND—LOS ANGELES STANDARD

SIZE	DIMENSION IN INCHES			WEIGHT IN POUNDS			PRICE		
	A	S	R	A/B	B/S	F/F	A/B	B/S	F/F
3	11.55	17.55	20.00	69	61	47	15.18	13.42	
4	11.55	17.55	20.00	87	75	63	19.14	16.50	
6	11.55	17.55	20.00	130	120	92	26.00	24.00	
8	11.55	17.55	20.00	194	183	138	38.80	36.60	
10	11.55	17.55	20.00	257	255	209	51.40	51.00	
12	11.55	17.55	20.00	336	336	300	67.20	67.20	
14	17.32	23.32	30.00	497	497	397	99.40	99.40	
16	17.32	23.32	30.00	671	691	585	134.20	138.20	
18	17.32	23.32	30.00	800	826	662	160.00	165.20	
20	23.09	29.09	40.00	1055	1061	883	211.00	212.20	
24	23.09	29.09	40.00	1580	1613	1402	316.00	322.60	



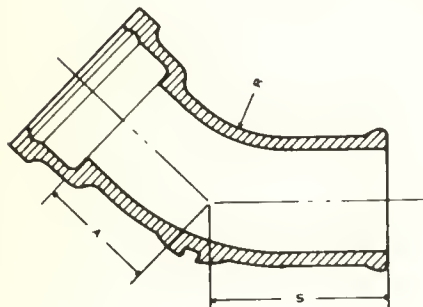
A - From center to seat of bell or face of flange.  
S - Center to end of spigot.  
R - Radius.

**BENDS**

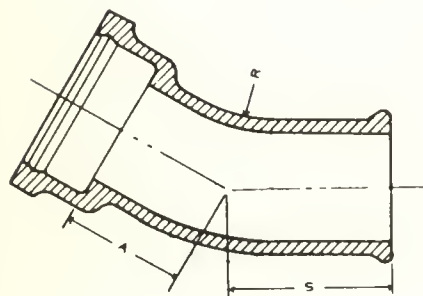
FLANGED FITTING PRICES ON REQUEST

**45° (1/8) BENDS—A. W. W. A. STANDARD**

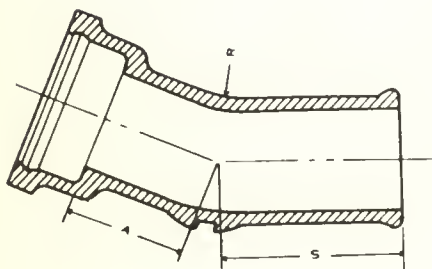
SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS			PRICE		
	A	S	R	A/B	B/S	F/F	A/B	B/S	F/F
3	9.94	15.94	24.00	65	53	43	14.30	11.66	
4	9.94	15.94	24.00	80	66	58	17.60	14.52	
6	9.94	15.94	24.00	121	105	84	24.20	21.00	
8	9.94	15.94	24.00	178	150	125	35.60	30.00	
10	9.94	15.94	24.00	234	202	172	46.80	40.40	
12	9.94	15.94	24.00	307	265	238	61.40	53.00	
14	14.91	20.91	36.00	490	442	420	98.00	88.40	
16	14.91	20.91	36.00	612	558	526	122.40	111.60	
18	14.91	20.91	36.00	736	663	611	147.20	132.60	
20	19.88	25.88	48.00	1046	964	853	209.20	192.80	
24	24.85	30.85	60.00	1625	1515	1377	325.00	303.00	

**30° (1/12) BENDS—LOS ANGELES STANDARD**

SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS			PRICE		
	A	S	R	A/B	B/S	F/F	A/B	B/S	F/F
3	7.00	9.00	18.66	57	47	35	12.54	10.34	
4	8.00	10.00	22.39	72	60	48	15.84	13.20	
6	10.00	12.00	29.85	110	100	72	22.00	20.00	
8	14.00	16.00	44.78	218	207	162	43.60	41.40	
10	13.50	16.50	42.92	255	232	207	51.00	46.40	
12	13.00	17.00	41.05	340	320	304	68.00	64.00	
14	13.25	17.25	42.00	550	520	450	110.00	104.00	
16	14.86	18.86	48.00	650	650	564	130.00	130.00	
18	16.97	20.47	54.00	870	870	732	174.00	174.00	
20	18.54	20.07	60.00	1020	1020	848	204.00	204.00	
24	22.29	25.29	72.00	1340	1340	1162	268.00	268.00	

**22 1/2° (1/16) BENDS—A. W. W. A. STANDARD**

SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS			PRICE		
	A	S	R	A/B	B/S	F/F	A/B	B/S	F/F
3	9.55	15.55	48.00	62	53	40	13.64	11.66	
4	9.55	15.55	48.00	80	66	58	17.60	14.52	
6	9.55	15.55	48.00	121	105	84	24.20	21.00	
8	9.55	15.55	48.00	178	150	125	35.60	30.00	
10	9.55	15.55	48.00	234	202	172	46.80	40.40	
12	9.55	15.55	48.00	307	265	238	61.40	53.00	
14	14.32	14.32	72.00	478	382	420	95.60	76.40	
16	14.32	14.32	72.00	612	484	526	122.40	96.80	
18	14.32	14.32	72.00	727	574	611	145.40	114.80	
20	19.10	19.10	96.00	1047	858	853	209.40	171.60	
24	23.87	23.87	120.00	1625	1372	1377	325.00	274.40	



ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

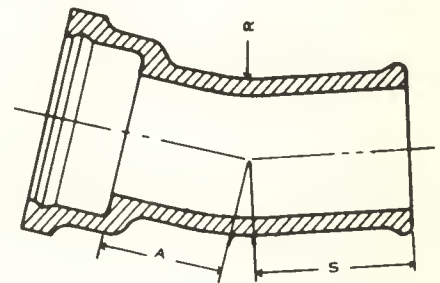


## BENDS

FLANGED FITTING PRICES ON REQUEST

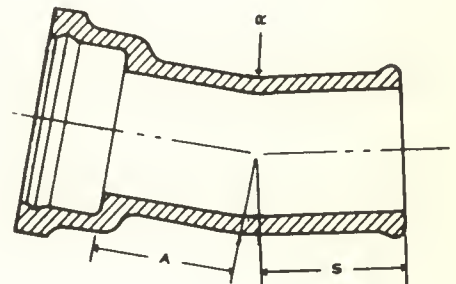
## 15° (1/24) BENDS—LOS ANGELES STANDARD

SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS			PRICE		
	A	S	R	A/B	B/S	F/F	A/B	B/S	F/F
3	4.63	6.63	20.00	54	37	32	11.88	8.14	
4	4.95	6.95	22.39	72	67	48	15.84	14.74	
6	5.93	7.93	29.85	109	80	71	21.80	16.00	
8	7.90	9.90	44.78	176	138	120	35.20	27.60	
10	7.65	10.65	42.92	216	177	168	43.20	35.40	
12	7.40	11.40	41.05	270	227	234	54.00	45.40	
14	7.53	11.53	42.00	390	309	290	78.00	61.80	
16	8.32	12.32	48.00	464	382	378	92.80	76.40	
18	9.61	13.11	54.00	603	504	465	120.60	100.80	
20	10.40	13.90	60.00	782	635	610	156.40	127.00	
24	12.48	15.48	72.00	1094	920	916	218.80	184.00	



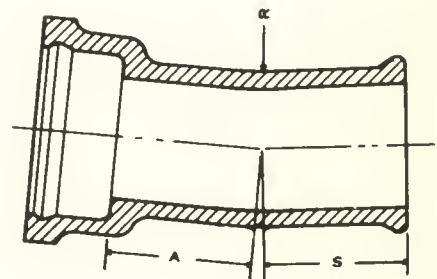
## 11 1/4° (1/32) BENDS—A. W. W. A. STANDARD

SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS			PRICE		
	A	S	R	A/B	B/S	F/F	A/B	B/S	F/F
3	11.82	11.82	120.00	70	53	48	15.40	11.66	
4	11.82	11.82	120.00	91	66	67	20.02	14.52	
6	11.82	11.82	120.00	138	104	100	27.60	20.80	
8	11.82	11.82	120.00	204	150	148	40.80	30.00	
10	11.82	11.82	120.00	260	192	212	52.00	38.40	
12	11.82	11.82	120.00	338	250	302	67.60	50.00	
14	17.73	17.73	180.00	546	450	446	109.20	90.00	
16	17.73	17.73	180.00	698	570	612	139.60	114.00	
18	17.73	17.73	180.00	827	674	689	165.40	134.80	
20	23.64	23.64	240.00	1217	1028	1021	243.40	205.60	
24	23.64	23.64	240.00	1633	1380	1376	326.60	276.00	



## 5 5/8° (1/64) BENDS—A. W. W. A. STANDARD

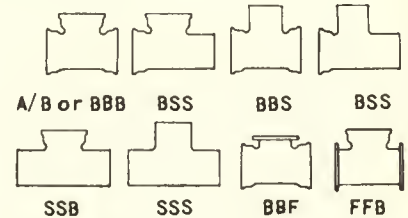
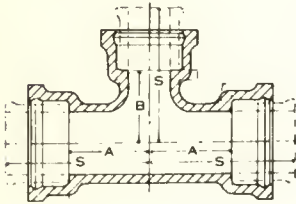
SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS			PRICE		
	A	S	R	A/B	B/S	F/F	A/B	B/S	F/F
3	11.79	11.79	240.00	70	53	48	15.40	11.66	
4	11.79	11.79	240.00	91	66	67	20.02	14.52	
6	11.79	11.79	240.00	138	104	100	27.60	20.80	
8	11.79	11.79	240.00	204	150	148	40.80	30.00	
10	11.79	11.79	240.00	260	192	212	52.00	38.40	
12	11.79	11.79	240.00	338	250	302	67.60	50.00	
14	17.69	17.69	360.00	546	450	446	109.20	90.00	
16	17.69	17.69	360.00	698	570	612	139.60	114.00	
18	17.69	17.69	360.00	827	674	689	165.40	134.80	
20	23.58	23.58	480.00	1217	1028	1021	243.40	205.60	
24	23.58	23.58	480.00	1633	1380	1376	326.60	276.00	



ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## TEES



## TEES—LOS ANGELES STANDARD

SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS		PRICE			ALL BELL TEES REDUCING ON RUN	
	A	B	S	A/B	B-S-B	A/B	B-S-B	* OTHER	SIZE	PRICE
3x 3x 3	5.50	5.50	15.50	78	81	\$ 17.16	\$ 17.82	\$ 28.40	4x 3x 3	\$ 33.65
4x 4x 3	6.50	6.25	16.50	102	103	22.44	22.66	33.65	4x 3x 4	36.30
4x 4x 4	6.50	6.50	16.50	110	107	24.20	23.54	36.30	6x 3x 3	40.20
6x 6x 3	7.75	7.25	17.75	134	137	26.80	27.40	40.20	6x 3x 4	44.10
6x 6x 4	7.75	7.50	17.75	147	149	29.40	29.80	44.10	6x 3x 6	51.00
6x 6x 6	7.75	7.75	17.75	170	173	34.00	34.60	51.00	6x 4x 3	42.70
8x 8x 3	9.00	8.25	19.00	184	190	36.80	38.00	55.20	6x 4x 4	46.60
8x 8x 4	9.00	8.50	19.00	194	202	38.80	40.40	58.20	6x 4x 6	53.50
8x 8x 6	9.00	8.75	19.00	214	222	42.80	44.40	64.20	8x 4x 3	55.20
8x 8x 8	9.00	9.00	19.00	230	236	46.00	47.20	69.00	8x 4x 4	58.20
10x10x 4	10.25	9.50	20.25	294	312	58.80	62.40	88.20	8x 4x 6	64.20
10x10x 6	10.25	9.75	20.25	308	327	61.60	65.40	92.25	8x 4x 8	69.00
10x10x 8	10.25	10.00	20.25	315	348	63.00	69.60	94.50	8x 6x 3	57.70
10x10x10	10.25	10.25	20.25	324	353	64.80	70.60	97.20	8x 6x 4	60.70
12x12x 4	11.50	10.50	21.50	388	416	77.60	83.20	116.40	8x 6x 6	66.70
12x12x 6	11.50	10.75	21.50	406	434	81.20	86.80	121.80	8x 6x 8	71.50
12x12x 8	11.50	11.00	21.50	420	448	84.00	89.60	126.00	10x 6x 4	88.20
12x12x10	11.50	11.25	21.50	437	465	87.40	93.00	131.10	10x 6x 6	92.25
12x12x12	11.50	11.50	21.50	458	497	91.60	99.40	137.40	10x 6x 8	94.50
14x14x 4	12.75	11.50	22.75	500	526	100.00	105.20	150.00	10x 6x10	97.20
14x14x 6	12.75	11.75	22.75	521	547	104.20	109.40	156.30	10x 8x 4	90.70
14x14x 8	12.75	12.00	22.75	530	556	106.00	111.20	159.00	10x 8x 6	94.75
14x14x10	12.75	12.25	22.75	588	614	117.60	122.80	176.40	10x 8x 8	97.00
14x14x12	12.75	12.50	22.75	605	631	121.00	126.20	181.50	10x 8x10	99.70
14x14x14	12.75	12.75	22.75	624	650	124.80	130.00	187.20	12x 8x 4	116.40
16x16x 4	14.00	12.50	24.00	670	693	134.00	138.60		12x 8x 6	121.80
16x16x 6	14.00	12.75	24.00	690	713	138.00	142.60		12x 8x 8	126.00
16x16x 8	14.00	13.00	24.00	718	741	143.60	148.20		12x 8x10	131.10
16x16x10	14.00	13.25	24.00	800	822	160.00	164.40		12x 8x12	137.40
16x16x12	14.00	13.50	24.00	812	836	162.40	167.20		12x10x 4	118.90
16x16x14	14.00	13.75	24.00	835	858	167.00	171.60		12x10x 6	124.30
16x16x16	14.00	14.00	24.00	848	862	169.60	172.40		12x10x 8	128.50
18x18x 4	15.50	13.50	25.50	877	903	175.40	180.60		12x10x10	133.60
18x18x 6	15.50	13.75	25.50	910	936	182.00	187.20		12x10x12	139.90
18x18x 8	15.50	14.00	25.50	923	949	184.60	189.80			
18x18x10	15.50	14.25	25.50	940	966	188.00	193.20			
18x18x12	15.50	14.50	25.50	960	986	192.00	197.20			
18x18x14	15.50	14.75	25.50	1007	1033	201.40	206.60			
18x18x16	15.50	15.00	25.50	1020	1046	204.00	209.20			
18x18x18	15.50	15.50	25.50	1050	1076	210.00	215.20			
20x20x 4	17.00	14.50	27.00	1085	1109	217.00	221.80			
20x20x 6	17.00	14.75	27.00	1090	1114	218.00	222.80			
20x20x 8	17.00	15.00	27.00	1100	1124	220.00	224.80			
20x20x10	17.00	15.25	27.00	1150	1175	230.00	235.00			
20x20x12	17.00	15.50	27.00	1200	1225	240.00	245.00			
20x20x14	17.00	15.75	27.00	1268	1292	253.60	258.40			
20x20x16	17.00	16.00	27.00	1285	1309	257.00	261.80			
20x20x18	17.00	16.50	27.00	1291	1315	258.20	263.00			
20x20x20	17.00	17.00	27.00	1300	1324	260.00	264.80			
24x24x 4	19.50	16.50	29.50	1557	1600	311.40	320.00			
24x24x 6	19.50	16.75	29.50	1573	1606	314.60	321.20			
24x24x 8	19.50	17.00	29.50	1600	1645	320.00	327.00			
24x24x10	19.50	17.25	29.50	1649	1683	329.80	336.60			
24x24x12	19.50	17.50	29.50	1700	1733	340.00	346.60			
24x24x14	19.50	17.75	29.50	1727	1760	345.40	352.00			
24x24x16	19.50	18.00	29.50	1750	1808	350.00	361.60			
24x24x18	19.50	18.50	29.50	1821	1948	364.20	389.60			
24x24x20	19.50	19.00	29.50	2066	2100	413.20	420.00			
24x24x24	19.50	19.50	29.50	2212	2245	442.40	449.00			

\*OTHER - BSS. BBS. SSS. SSB.

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





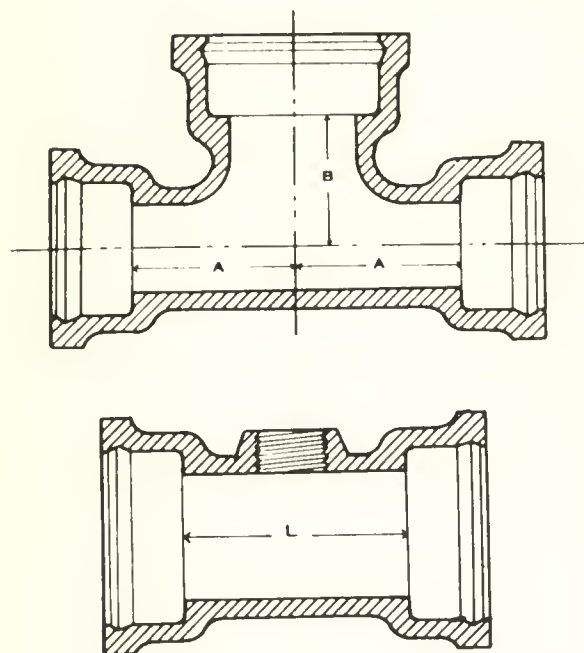
**TEES**  
**FLANGED FITTING PRICES ON REQUEST**  
**TEES—A. W. W. A. STANDARD**

SIZE	DIMENSION IN INCHES			WEIGHT IN POUNDS			PRICE			OTHER	ALL BELL TEES REDUCING ON RUN	
	A	B	S	A/B	B-S-B	F/F	A/B	B-S-B	BBF	F/F		
3x 3x 3	10.00	10.00	22.00	94	92	55	20.68	20.24			33.80	
4x 4x 3	11.00	11.00	23.00	120	121	80	26.40	26.62			39.60	
4x 4x 4	11.00	11.00	23.00	128	125	89	28.16	27.50			41.25	
6x 6x 3	12.00	12.00	24.00	170	173	116	34.00	34.60			51.00	4x 3x 3 39.60
6x 6x 4	12.00	12.00	24.00	183	185	126	36.60	37.00			54.90	4x 3x 4 41.25
6x 6x 6	12.00	12.00	24.00	200	203	139	40.00	40.60			60.00	6x 3x 3 51.00
8x 8x 3	13.00	13.00	25.00	242	250	171	48.40	50.00			72.60	6x 3x 4 54.90
8x 8x 4	13.00	13.00	25.00	255	262	183	51.00	52.40			76.50	6x 3x 6 60.00
8x 8x 6	13.00	13.00	25.00	270	278	196	54.00	55.60			81.00	6x 4x 3 53.50
8x 8x 8	13.00	13.00	25.00	294	301	215	58.80	60.20			88.20	6x 4x 4 57.40
10x10x 4	14.00	14.00	26.00	338	356	253	67.60	71.20			101.40	6x 4x 6 62.50
10x10x 6	14.00	14.00	26.00	351	371	272	70.20	74.20			105.30	8x 4x 3 72.60
10x10x 8	14.00	14.00	26.00	371	389	284	74.20	77.80			111.30	8x 4x 4 76.50
10x10x10	14.00	14.00	26.00	395	414	303	79.00	82.80			118.50	8x 4x 6 81.00
12x12x 4	15.00	15.00	27.00	445	473	351	89.00	94.60			133.50	8x 4x 8 88.20
12x12x 6	15.00	15.00	27.00	458	486	365	91.60	97.20			137.40	8x 6x 3 75.10
12x12x 8	15.00	15.00	27.00	474	502	382	94.80	100.40			142.20	8x 6x 4 79.00
12x12x10	15.00	15.00	27.00	491	519	398	98.20	103.80			147.30	8x 6x 6 83.50
12x12x12	15.00	15.00	27.00	512	540	426	102.40	108.00			153.60	8x 6x 8 90.70
14x14x 4	16.00	16.00	28.00	588	614	456	117.60	122.80			176.40	10x 6x 4 101.40
14x14x 6	16.00	16.00	28.00	608	634	470	121.60	126.80			182.40	10x 6x 6 105.30
14x14x 8	16.00	16.00	28.00	636	662	487	127.20	132.40			190.80	10x 6x 8 111.30
14x14x10	16.00	16.00	28.00	653	679	512	130.60	135.80			195.90	10x 6x10 118.50
14x14x12	16.00	16.00	28.00	672	698	544	134.40	139.60			201.60	10x 8x 4 103.90
14x14x14	16.00	16.00	28.00	724	750	573	144.80	150.00			217.20	10x 8x 6 107.80
16x16x 4	17.00	17.00	29.00	760	783	580	152.00	156.60				10x 8x 8 113.80
16x16x 6	17.00	17.00	29.00	779	802	597	155.80	160.40				10x 8x10 121.00
16x16x 8	17.00	17.00	29.00	808	831	616	161.60	166.20				12x 8x 4 133.50
16x16x10	17.00	17.00	29.00	849	872	640	169.80	174.40				12x 8x 6 137.40
16x16x12	17.00	17.00	29.00	861	884	672	172.20	176.80				12x 8x 8 142.20
16x16x14	17.00	17.00	29.00	880	903	700	176.00	180.60				12x 8x10 147.30
16x16x16	17.00	17.00	29.00	969	991	737	193.80	198.20				12x 8x12 153.60
18x18x 4	18.00	18.00	30.00	927	953	707	185.40	190.60				12x10x 4 136.00
18x18x 6	18.00	18.00	30.00	942	968	725	188.40	193.60				12x10x 6 139.90
18x18x 8	18.00	18.00	30.00	974	1000	743	194.80	200.00				12x10x 8 144.70
18x18x10	18.00	18.00	30.00	1012	1038	767	202.40	207.60				12x10x10 149.80
18x18x12	18.00	18.00	30.00	1049	1075	782	209.80	215.00				12x10x12 156.10
18x18x14	18.00	18.00	30.00	1057	1083	816	211.40	216.60				
18x18x16	18.00	18.00	30.00	1082	1108	850	216.40	221.60				
18x18x18	18.00	18.00	30.00	1144	1170	871	228.80	234.00				
20x20x 4	19.00	19.00	31.00	1148	1172	882	229.60	234.40				
20x20x 6	19.00	19.00	31.00	1164	1188	902	232.80	237.60				
20x20x 8	19.00	19.00	31.00	1188	1212	919	237.60	242.40				
20x20x10	19.00	19.00	31.00	1227	1252	944	245.40	250.40				
20x20x12	19.00	19.00	31.00	1263	1288	993	252.60	257.60				
20x20x14	19.00	19.00	31.00	1318	1342	1028	263.60	268.40				
20x20x16	19.00	19.00	31.00	1323	1347	1056	264.60	269.40				
20x20x18	19.00	19.00	31.00	1341	1365	1081	268.20	273.00				
20x20x20	19.00	19.00	31.00	1438	1462	1110	287.60	292.40				
24x24x 4	21.00	21.00	33.00	1621	1664	1281	324.20	332.80				
24x24x 6	21.00	21.00	33.00	1637	1670	1301	327.40	334.00				
24x24x 8	21.00	21.00	33.00	1664	1699	1318	332.80	339.80				
24x24x10	21.00	21.00	33.00	1699	1732	1342	339.80	346.40				
24x24x12	21.00	21.00	33.00	1735	1768	1391	347.00	353.60				
24x24x14	21.00	21.00	33.00	1777	1810	1429	355.40	362.00				
24x24x16	21.00	21.00	33.00	1825	1858	1453	365.00	371.60				
24x24x18	21.00	21.00	33.00	1965	1998	1574	393.00	399.60				
24x24x20	21.00	21.00	33.00	2116	2150	1631	423.20	430.00				
24x24x24	21.00	21.00	33.00	2262	2295	1744	452.40	459.00				

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## TEES



### BULL HEAD TEES—A/B

SIZE	DIMENSIONS IN INCHES		WEIGHT IN POUNDS	PRICE
	A	B		
2x 2x 4	6.50	6.50	54	15.12
2x 2x 6	7.75	7.75	68	19.04
2x 2x 8	9.00	9.00	90	25.20
3x 3x 4	6.50	6.50	110	24.20
3x 3x 6	7.75	7.75	120	26.40
3x 3x 8	9.00	9.00	142	31.24
3x 3x10	10.25	10.25	170	37.40
4x 4x 6	7.75	7.75	160	35.20
4x 4x 8	9.00	9.00	185	40.70
4x 4x10	10.25	10.25	200	44.00
4x 4x12	11.50	11.50	290	63.80
6x 6x 8	9.00	9.00	230	50.60
6x 6x10	10.25	10.25	255	56.10
6x 6x12	11.50	11.50	295	64.90
8x 8x10	10.25	10.25	350	77.00
8x 8x12	11.50	11.50	385	84.70
10x10x12	11.50	11.50	435	95.70

### TAPPED TEES & CROSSES

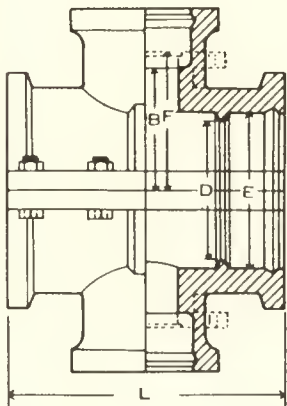
SIZE	SIZE TAP	L	WEIGHT		PRICE	
			TEE	CROSS	TEE	CROSS
3	$\frac{1}{2}$	7	55	58	19.10	20.25
3	$\frac{3}{4}$	7	55	58	19.10	20.25
3	1	7	55	58	19.10	20.25
3	$1\frac{1}{2}$	7	55	58	19.10	20.25
3	2	7	55	58	19.40	20.85
3	$2\frac{1}{2}$	7	55	58	19.80	22.50
3	3	7	55	58	21.00	24.00
4	$\frac{1}{2}$	7	69	72	20.90	22.35
4	$\frac{3}{4}$	7	69	72	20.90	22.35
4	1	7	69	72	20.90	22.35
4	$1\frac{1}{2}$	7	69	72	20.90	22.35
4	2	7	69	72	21.20	22.65
4	$2\frac{1}{2}$	7	69	72	21.60	23.05
4	3	7	69	72	22.85	25.25
4	4	7	69	72	23.95	27.95
6	$\frac{1}{2}$	10	101	104	26.25	27.70
6	$\frac{3}{4}$	10	101	104	26.25	27.70
6	1	10	101	104	26.25	27.70
6	$1\frac{1}{2}$	10	101	104	26.25	27.70
6	2	10	101	104	26.55	28.00
6	$2\frac{1}{2}$	10	101	104	26.95	28.40
6	3	10	101	104	28.10	30.60
6	4	10	101	104	30.10	34.95

### TAPPED TEES & CROSSES

	SIZE TAP	L	WEIGHT		PRICE	
			TEE	CROSS	TEE	CROSS
8	$\frac{1}{2}$	10	154	157	37.00	38.15
8	$\frac{3}{4}$	10	154	157	37.00	38.15
8	1	10	154	157	37.00	38.15
8	$1\frac{1}{2}$	10	154	157	37.00	38.15
8	2	10	154	157	37.10	38.50
8	$2\frac{1}{2}$	10	154	157	37.60	40.15
8	3	10	154	157	39.10	43.65
8	4	10	154	157	40.60	46.15
10	$\frac{1}{2}$	10	197	200	40.50	42.60
10	$\frac{3}{4}$	10	197	200	40.50	42.60
10	1	10	197	200	40.50	42.60
10	$1\frac{1}{2}$	10	197	200	40.50	42.60
10	2	10	197	200	40.90	43.00
10	$2\frac{1}{2}$	10	197	200	41.40	43.50
10	3	10	197	200	42.90	46.00
10	4	10	197	200	44.40	48.50
12	$\frac{1}{2}$	10	256	259	52.30	54.40
12	$\frac{3}{4}$	10	256	259	52.30	54.40
12	1	10	256	259	52.30	54.40
12	$1\frac{1}{2}$	10	256	259	52.30	54.40
12	2	10	256	259	52.70	54.80
12	$2\frac{1}{2}$	10	256	259	53.20	55.30
12	3	10	256	259	54.70	57.80
12	4	10	256	259	56.20	60.30

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## SPLIT TEES AND TAPPING TEES



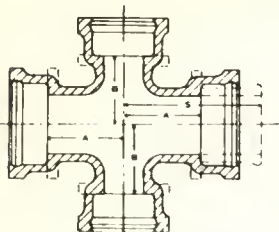
SPLIT TEE OR CROSS HAS BELL OUTLET  
TAPPING TEE OR CROSS HAS FLANGE OUTLET  
FURNISHED WITH OR WITHOUT CAULKING BEAD(D)

### SPLIT TEES & CROSSES—TAPPING TEES & CROSSES

SIZE	DIMENSIONS IN INCHES					NO. RIBS	BOLTS		WEIGHT IN POUNDS				PRICE			
	B	F	D	E	L		NO.	SIZE	SPLIT TEE	SPLIT CROSS	TAPPING TEE	TAPPING CROSS	SPLIT TEE	SPLIT CROSS	TAPPING TEE	TAPPING CROSS
4x4	5.65	8.00	5.25	5.80	14.3		8	3/4	168	201	162	189	43.68	52.26	53.68	72.26
6x4	6.80	9.00	7.35	7.90	14.3		8	3/4	206	240	200	228	53.56	62.40	63.56	82.40
6x6	7.00	9.00	7.35	7.90	16.3		8	3/4	251	299	242	281	65.26	77.74	75.26	97.74
8x4	8.00	10.15	9.55	10.10	14.3	1	8	3/4	273	307	267	295	70.98	79.82	80.98	99.82
8x6	8.20	10.15	9.55	10.10	16.3	1	8	3/4	310	358	301	340	80.60	93.08	90.60	113.08
8x8	8.35	10.15	9.55	10.10	18.3	1	8	3/4	350	432	336	404	91.00	112.32	101.00	132.32
10x4	9.15	11.25	11.65	12.20	14.3	1	8	3/4	370	404	364	392	96.20	105.04	106.20	125.04
10x6	9.35	11.25	11.65	12.20	16.3	1	8	3/4	380	429	371	410	98.80	111.54	108.80	131.54
10x8	9.50	11.25	11.65	12.20	18.3	1	8	3/4	430	505	416	477	111.80	131.30	121.80	151.30
10x10	9.80	11.25	11.65	12.20	20.3	2	10	3/4	506	597	494	573	131.56	155.22	141.50	175.52
12x4	10.30	12.35	13.75	14.30	14.3	1	8	7/8	390	425	384	413	101.40	110.50	111.40	130.50
12x6	10.50	12.35	13.75	14.30	16.3	1	8	7/8	460	510	451	491	119.60	132.60	129.60	152.60
12x8	10.65	12.35	13.75	14.30	18.3	1	8	7/8	502	577	488	549	130.52	150.00	140.52	170.00
12x10	10.95	12.35	13.75	14.30	20.3	2	10	7/8	542	635	530	607	140.92	165.10	150.92	185.10
12x12	11.15	12.35	13.75	14.30	22.3	2	10	7/8	598	713	589	695	155.48	185.38	165.48	205.38
14x4	11.52	13.45	15.90	16.45	14.3	1	8	7/8	500	535	494	523	130.00	139.10	140.00	159.10
14x6	11.72	13.45	15.90	16.45	16.3	1	8	7/8	535	585	526	566	139.10	152.10	149.10	172.10
14x8	11.87	13.45	15.90	16.45	18.3	1	8	7/8	585	662	571	634	152.10	172.12	162.10	192.12
14x10	12.17	13.45	15.90	16.45	20.3	2	10	7/8	635	728	621	704	165.10	189.28	175.10	209.28
14x12	12.37	13.45	15.90	16.45	22.3	2	10	7/8	690	809	681	791	179.40	210.34	189.40	230.34
16x4	12.75	14.70	18.05	18.80	14.3	1	8	1	535	571	529	559	139.10	148.46	149.10	168.46
16x6	12.95	14.70	18.05	18.80	16.3	1	8	1	610	661	601	642	158.60	171.86	168.60	191.86
16x8	13.10	14.70	18.05	18.80	18.3	1	8	1	650	728	636	700	169.00	189.28	179.00	209.28
16x10	13.40	14.70	18.05	18.80	20.3	2	8	1	702	795	688	771	182.52	206.70	192.52	226.70
16x12	13.60	14.70	18.05	18.80	22.3	2	10	1	910	1033	901	1015	236.60	268.58	246.60	288.58
18x4	14.01	15.80	20.17	20.92	14.3	1	8	1	580	616	574	604	150.80	160.16	156.70	171.53
18x6	14.21	15.80	20.17	20.92	16.3	1	8	1	680	716	674	704	176.80	186.16	184.00	199.93
18x8	14.36	15.80	20.17	20.92	18.3	1	8	1	774	820	780	850	201.24	213.20	212.94	241.40
18x10	14.63	15.80	20.17	20.92	20.3	2	10	1	894	994	883	970	232.44	258.44	241.05	275.48
18x12	14.86	15.80	20.17	20.92	22.3	2	10	1	1090	1213	1081	1195	283.40	315.38	295.11	339.38
20x4	15.23	17.40	22.31	23.06	14.3	1	8	1	690	735	680	730	179.40	191.10	185.65	207.32
20x6	15.43	17.40	22.31	23.06	16.3	1	8	1-1/8	800	860	790	850	208.00	223.60	215.67	241.40
20x8	15.58	17.40	22.31	23.06	18.3	1	8	1-1/8	912	987	900	975	237.12	256.62	245.70	276.90
20x10	15.88	17.40	22.31	23.06	20.3	2	8	1-1/8	1060	1159	1048	1135	275.60	301.34	286.10	322.34
20x12	16.08	17.40	22.31	23.06	22.3	2	8	1-1/8	1140	1263	1131	1245	296.40	328.12	308.49	353.58
24x4	17.56	19.50	26.57	27.32	14.3	1	8	1	910	948	904	936	236.60	246.48	246.60	266.48
24x6	17.76	19.50	26.57	27.32	16.3	1	8	1-1/8	1010	1064	1001	1045	262.60	276.64	272.60	296.64
24x8	17.91	19.50	26.57	27.32	18.3	1	8	1-1/8	1130	1212	1116	1184	293.80	315.12	303.80	335.12
24x10	18.11	19.50	26.57	27.32	20.3	2	10	1-1/8	1218	1317	1206	1293	316.68	342.42	326.68	362.42
24x12	18.26	19.50	26.57	27.32	22.3	2	10	1-1/8	1380	1503	1371	1485	358.80	390.78	368.80	410.78

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## CROSSES



## CROSSES—LOS ANGELES STANDARD

SIZE	DIMENSIONS IN INCHES			WEIGHT IN POUNDS		PRICE	
	A	B	S	A/B	BSBB	A/B	BSBB
3x3	5.50	5.50	15.50	114	114	25.08	25.08
4x3	6.50	6.25	16.50	142	143	31.24	31.46
4x4	6.50	6.50	16.50	155	154	34.10	33.88
6x3	7.75	7.25	17.75	173	176	34.60	35.20
6x4	7.75	7.50	17.75	190	192	38.00	38.40
6x6	7.75	7.75	17.75	215	218	43.00	43.60
8x3	9.00	8.25	19.00	225	233	45.00	46.60
8x4	9.00	8.50	19.00	242	249	48.40	49.80
8x6	9.00	8.75	19.00	270	278	54.00	55.60
8x8	9.00	9.00	19.00	300	306	60.00	61.20
10x4	10.25	9.50	20.25	325	343	65.00	68.60
10x6	10.25	9.75	20.25	355	373	71.00	74.60
10x8	10.25	10.00	20.25	384	402	76.80	80.40
10x10	10.25	10.25	20.25	412	430	82.40	86.00
12x4	11.50	10.50	21.50	440	468	88.00	93.60
12x6	11.50	10.75	21.50	452	480	90.40	96.00
12x8	11.50	11.00	21.50	512	540	102.40	108.00
12x10	11.50	11.25	21.50	530	558	106.00	111.60
12x12	11.50	11.50	21.50	566	594	113.20	118.80
14x4	12.75	11.50	22.75	650	675	130.00	135.00
14x6	12.75	11.75	22.75	656	686	131.20	137.20
14x8	12.75	12.00	22.75	680	706	136.00	141.20
14x10	12.75	12.25	22.75	710	736	142.00	147.20
14x12	12.75	12.50	22.75	760	786	152.00	157.20
14x14	12.75	12.75	22.75	800	838	160.00	167.60
16x4	14.00	12.50	24.00	700	727	140.00	145.40
16x6	14.00	12.75	24.00	720	743	144.00	148.60
16x8	14.00	13.00	24.00	770	793	154.00	158.60
16x10	14.00	13.25	24.00	815	838	163.00	167.60
16x12	14.00	13.50	24.00	912	935	182.40	187.00
16x14	14.00	13.75	24.00	962	984	192.40	196.80
16x16	14.00	14.00	24.00	1050	1072	210.00	214.40
18x4	15.50	13.50	25.50	930	956	186.00	191.20
18x6	15.50	13.75	25.50	950	975	190.00	195.00
18x8	15.50	14.00	25.50	1015	1041	203.00	208.20
18x10	15.50	14.25	25.50	1031	1056	206.20	211.20
18x12	15.50	14.50	25.50	1112	1138	222.40	227.60
18x14	15.50	14.75	25.50	1130	1156	226.00	231.20
18x16	15.50	15.00	25.50	1230	1256	246.00	251.20
18x18	15.50	15.50	25.50	1320	1346	264.00	269.20
20x4	17.00	14.50	27.00	1135	1160	227.00	232.00
20x6	17.00	14.75	27.00	1150	1174	230.00	234.80
20x8	17.00	15.00	27.00	1185	1209	237.00	241.80
20x10	17.00	15.25	27.00	1287	1311	257.40	262.20
20x12	17.00	15.50	27.00	1300	1323	260.00	264.60
20x14	17.00	15.75	27.00	1400	1425	280.00	285.00
20x16	17.00	16.00	27.00	1440	1472	288.00	294.40
20x18	17.00	16.50	27.00	1584	1608	316.80	321.60
20x20	17.00	17.00	27.00	1597	1621	319.40	324.20
24x4	19.50	16.50	29.50	1693	1730	338.60	346.00
24x6	19.50	16.75	29.50	1725	1759	345.00	351.80
24x8	19.50	17.00	29.50	1795	1828	359.00	365.60
24x10	19.50	17.25	29.50	1825	1858	365.00	371.60
24x12	19.50	17.50	29.50	1900	1933	380.00	386.60
24x14	19.50	17.75	29.50	1950	1983	390.00	396.60
24x16	19.50	18.00	29.50	2050	2084	410.00	416.80
24x18	19.50	18.50	29.50	2250	2283	450.00	456.60
24x20	19.50	19.00	29.50	2535	2579	507.00	515.80
24x24	19.50	19.50	29.50	2750	2783	550.00	556.60

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





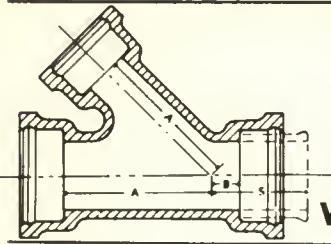
## CROSSES

FLANGED FITTING PRICES ON REQUEST

## CROSSES—A. W. W. A. STANDARD

SIZE	DIMENSION IN INCHES			WEIGHT IN POUNDS			PRICE	
	A	B	S	A/B	BSBB	F/F	A/B	BSBB
3x3	10.00	10.00	22.00	125	124	81	27.50	27.28
4x3	11.00	11.00	23.00	153	153	107	33.66	33.66
4x4	11.00	11.00	23.00	166	164	115	36.52	36.08
6x3	12.00	12.00	24.00	204	207	144	40.80	41.40
6x4	12.00	12.00	24.00	221	223	152	44.20	44.60
6x6	12.00	12.00	24.00	257	259	179	51.40	51.80
8x3	13.00	13.00	25.00	277	285	199	55.40	57.00
8x4	13.00	13.00	25.00	294	301	210	58.80	60.20
8x6	13.00	13.00	25.00	325	333	237	65.00	66.60
8x8	13.00	13.00	25.00	372	378	276	74.40	75.60
10x4	14.00	14.00	26.00	377	395	280	75.40	79.00
10x6	14.00	14.00	26.00	406	424	306	81.20	84.80
10x8	14.00	14.00	26.00	443	461	341	88.60	92.20
10x10	14.00	14.00	26.00	493	511	396	98.60	102.20
12x4	15.00	15.00	27.00	486	514	378	97.20	102.80
12x6	15.00	15.00	27.00	512	540	404	102.40	108.00
12x8	15.00	15.00	27.00	545	573	439	109.00	114.60
12x10	15.00	15.00	27.00	577	605	494	115.40	121.00
12x12	15.00	15.00	27.00	623	651	557	124.60	130.20
14x4	16.00	16.00	28.00	641	666	483	128.20	133.20
14x6	16.00	16.00	28.00	700	730	510	140.00	146.00
14x8	16.00	16.00	28.00	761	787	544	152.20	157.40
14x10	16.00	16.00	28.00	796	822	596	159.20	164.40
14x12	16.00	16.00	28.00	834	860	659	166.80	172.00
14x14	16.00	16.00	28.00	963	938	717	192.60	187.60
16x4	17.00	17.00	29.00	841	864	606	168.20	172.80
16x6	17.00	17.00	29.00	879	902	637	175.80	180.40
16x8	17.00	17.00	29.00	938	961	678	187.60	192.20
16x10	17.00	17.00	29.00	1019	1042	726	203.80	208.40
16x12	17.00	17.00	29.00	1043	1066	788	208.60	213.20
16x14	17.00	17.00	29.00	1082	1104	845	216.40	220.80
16x16	17.00	17.00	29.00	1259	1282	916	251.80	256.40
18x4	18.00	18.00	30.00	1020	1046	733	204.00	209.20
18x6	18.00	18.00	30.00	1049	1075	770	209.80	215.00
18x8	18.00	18.00	30.00	1114	1140	805	222.80	228.00
18x10	18.00	18.00	30.00	1190	1216	853	238.00	243.20
18x12	18.00	18.00	30.00	1264	1290	884	252.80	258.00
18x14	18.00	18.00	30.00	1280	1306	952	256.00	261.20
18x16	18.00	18.00	30.00	1330	1356	1019	266.00	271.20
18x18	18.00	18.00	30.00	1454	1480	1061	290.80	296.00
20x4	19.00	19.00	31.00	1248	1273	907	249.60	254.60
20x6	19.00	19.00	31.00	1280	1304	947	256.00	260.80
20x8	19.00	19.00	31.00	1328	1352	981	265.60	270.40
20x10	19.00	19.00	31.00	1407	1431	1031	281.40	286.20
20x12	19.00	19.00	31.00	1479	1502	1129	295.80	300.40
20x14	19.00	19.00	31.00	1588	1613	1199	317.60	322.60
20x16	19.00	19.00	31.00	1597	1622	1255	319.40	324.40
20x18	19.00	19.00	31.00	1634	1658	1303	326.80	331.60
20x20	19.00	19.00	31.00	1828	1852	1363	365.60	370.40
24x4	21.00	21.00	33.00	1743	1785	1306	348.60	357.00
24x6	21.00	21.00	33.00	1775	1809	1346	355.00	361.80
24x8	21.00	21.00	33.00	1830	1863	1380	366.00	372.60
24x10	21.00	21.00	33.00	1900	1933	1428	380.00	386.60
24x12	21.00	21.00	33.00	1972	2005	1527	394.40	401.00
24x14	21.00	21.00	33.00	2055	2088	1597	411.00	417.60
24x16	21.00	21.00	33.00	2151	2185	1652	430.20	437.00
24x18	21.00	21.00	33.00	2397	2430	1859	479.40	486.00
24x20	21.00	21.00	33.00	2697	2731	1971	539.40	546.20
24x24	21.00	21.00	33.00	2947	2980	2189	589.40	596.00

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## WYES

FLANGED FITTING PRICES ON REQUEST

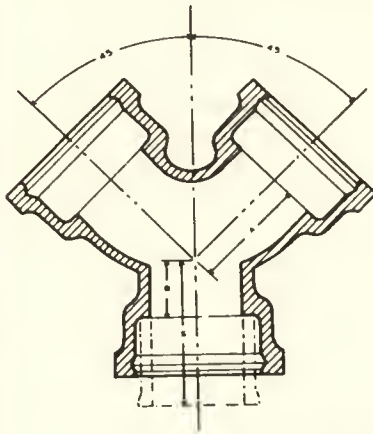
## WYES (45° LATERALS) A. W. W. A. STANDARD

SIZE	DIMENSION IN INCHES			WEIGHT IN POUNDS			PRICE	
	A	B	S	A/B	B-S-B	F/F	A/B	B-S-B
3X3X3	9.50	3.50	10.50	80	78	68	22.40	21.84
4X4X3	10.50	4.00	11.50	97	98	108	24.25	24.50
4X4X4	10.50	4.00	11.50	106	103	117	26.50	25.75
6X6X3	13.00	4.00	13.00	152	155	153	38.00	38.75
6X6X4	13.00	4.00	13.00	165	167	164	41.25	41.75
6X6X6	13.00	4.00	13.00	178	181	185	44.50	45.25
8X8X3	16.00	4.00	14.00	214	222	220	53.50	55.50
8X8X4	16.00	4.00	14.00	227	234	228	56.75	58.50
8X8X6	16.00	4.00	14.00	260	268	259	65.00	67.00
8X8X8	16.00	4.00	14.00	284	291	293	71.00	72.75
10X10X4	18.50	4.50	15.50	333	351	359	83.25	87.75
10X10X6	18.50	4.50	15.50	346	366	367	86.50	91.50
10X10X8	18.50	4.50	15.50	380	398	406	95.00	99.50
10X10X10	18.50	4.50	15.50	415	434	453	103.75	108.50
12X12X4	21.50	4.50	15.50	479	507	521	119.75	126.75
12X12X6	21.50	4.50	15.50	492	520	530	123.00	130.00
12X12X8	21.50	4.50	15.50	525	553	590	131.25	138.25
12X12X10	21.50	4.50	15.50	560	588	628	140.00	147.00
12X12X12	21.50	4.50	15.50	604	632	677	151.00	158.00
14X14X4	24.00	6.50	16.00	779	805	829	194.75	201.25
14X14X6	24.00	6.50	16.00	799	825	837	199.75	206.25
14X14X8	24.00	6.50	16.00	834	860	882	208.50	215.00
14X14X10	24.00	6.50	16.00	874	900	937	218.50	225.00
14X14X12	24.00	6.50	16.00	920	946	1003	230.00	236.50
14X14X14	24.00	6.50	16.00	957	985	1069	239.25	246.25
16X16X4	31.00	6.50	17.50	1096	1119		274.00	279.75
16X16X6	31.00	6.50	17.50	1115	1138		278.75	284.50
16X16X8	31.00	6.50	17.50	1144	1167		286.00	291.75
16X16X10	31.00	6.50	17.50	1191	1214		297.75	303.50
16X16X12	31.00	6.50	17.50	1247	1270		311.75	317.50
16X16X14	31.00	6.50	17.50	1299	1322		324.75	330.50
16X16X16	31.00	6.50	17.50	1393	1415		348.25	353.75
18X18X4	34.00	7.25	18.00	1375	1349		343.75	337.25
18X18X6	34.00	7.25	18.00	1390	1364		347.50	341.00
18X18X8	34.00	7.25	18.00	1422	1396		355.50	349.00
18X18X10	34.00	7.25	18.00	1460	1434		365.00	358.50
18X18X12	34.00	7.25	18.00	1512	1486		378.00	371.50
18X18X14	34.00	7.25	18.00	1575	1549		393.75	387.25
18X18X16	34.00	7.25	18.00	1657	1531		414.25	382.75
18X18X18	34.00	7.25	18.00	1740	1714		435.00	428.50
20X20X4	37.00	7.25	18.75	1752	1728		438.00	432.00
20X20X6	37.00	7.25	18.75	1768	1744		442.00	436.00
20X20X8	37.00	7.25	18.75	1792	1768		448.00	442.00
20X20X10	37.00	7.25	18.75	1832	1807		458.00	451.75
20X20X12	37.00	7.25	18.75	1868	1843		467.00	460.75
20X20X14	37.00	7.25	18.75	1928	1904		482.00	476.00
20X20X16	37.00	7.25	18.75	2014	1990		503.50	497.50
20X20X18	37.00	7.25	18.75	2080	2056		520.00	514.00
20X20X20	37.00	7.25	18.75	2200	2176		550.00	544.00
24X24X4	40.00	13.00	18.75	2376	2333		594.00	583.25
24X24X6	40.00	13.00	18.75	2382	2339		595.50	584.75
24X24X8	40.00	13.00	18.75	2411	2376		602.75	594.00
24X24X10	40.00	13.00	18.75	2444	2411		611.00	602.75
24X24X12	40.00	13.00	18.75	2480	2447		620.00	611.75
24X24X14	40.00	13.00	18.75	2522	2489		630.50	622.25
24X24X16	40.00	13.00	18.75	2570	2537		642.50	634.25
24X24X18	40.00	13.00	18.75	2680	2647		670.00	661.75
24X24X20	40.00	13.00	18.75	3084	3051		771.00	762.75
24X24X24	40.00	13.00	18.75	3600	3567		900.00	891.75

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

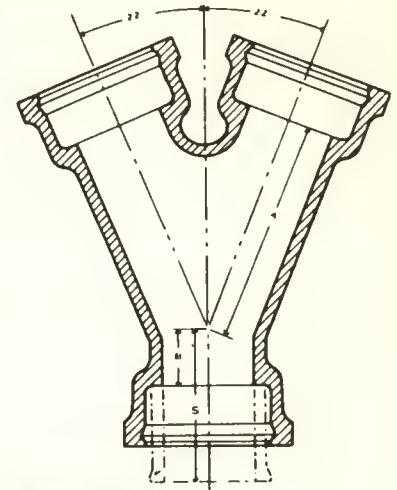


## SPECIAL WYES



TRUE WYE

SIZE	DIMENSIONS IN INCHES			WEIGHT	
	A	B	S	A/B	SBB
3X3X3	6.00	2.50	12.50	88	72
4X3X3	6.00	3.00	13.00	96	90
4X4X4	7.00	2.50	12.50	112	106
6X4X4	7.00	3.00	13.00	126	120
6X6X6	8.25	3.50	13.50	158	152
8X6X6	8.25	3.50	13.50	182	168
8X8X8	9.50	4.00	14.00	264	250
10X8X8	9.50	4.00	14.00	278	274
10X10X10	10.75	4.50	14.50	356	352
12X8X8	9.50	4.00	14.00	297	300
12X10X10	10.75	4.50	14.50	376	378
12X12X12	12.25	5.00	15.00	464	468
14X10X10	10.75	5.00	15.00	435	416
14X12X12	12.25	5.50	15.50	525	506
14X14X14	13.00	6.00	16.00	660	640
16X12X12	12.25	5.50	15.50	548	542
16X14X14	13.00	6.00	16.00	684	678
16X16X16	14.50	6.50	16.50	906	898
18X12X12	12.25	5.50	15.50	594	584
18X14X14	13.00	6.00	16.00	730	720
18X16X16	14.50	6.50	16.50	954	944
18X18X18	16.25	7.00	17.00	1088	1078
20X14X14	13.00	6.00	16.00	790	768
20X16X16	14.50	6.50	16.50	1014	974
20X18X18	16.25	7.00	17.00	1150	1128
20X20X20	18.00	7.50	17.50	1322	1300
24X18X18	16.25	8.00	18.00	1262	1254
24X20X20	18.00	8.50	18.50	1438	1430
24X24X24	22.25	9.00	19.00	2040	2032

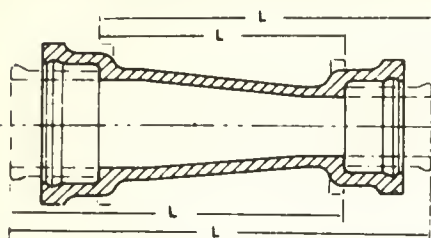


BREECHES WYE

SIZE	DIMENSIONS IN INCHES			WEIGHT	
	A	B	S	A/B	SBB
3X3X3	10.50	4.50	15.00	108	100
4X3X3	10.50	3.00	15.00	118	110
4X4X4	11.50	4.50	15.50	148	144
6X4X4	11.50	2.00	12.00	163	150
6X6X6	14.00	4.75	15.50	228	226
8X6X6	14.00	2.00	12.00	284	278
8X8X8	16.00	5.00	15.50	356	350
10X8X8	16.00	2.50	12.00	372	354
10X10X10	19.00	5.25	16.00	510	495
12X8X8	16.00	1.00	10.50	394	365
12X10X10	19.00	3.00	15.00	538	520
12X12X12	21.50	5.25	16.00	694	687
14X10X10	19.00	1.00	10.50	540	510
14X12X12	21.50	3.00	12.00	682	660
14X14X14	24.00	5.50	16.00	924	894
16X12X12	21.50	1.00	12.00	735	700
16X14X14	24.00	3.00	14.00	990	985
16X16X16	27.50	5.75	17.00	1290	1275
18X12X12	21.50	1.00	10.00	780	700
18X14X14	24.00	1.00	12.00	1034	990
18X16X16	27.50	3.50	15.50	1310	1285
18X18X18	30.00	6.00	18.00	1620	1607
20X14X14	24.00	1.00	10.00	1194	1080
20X16X16	27.50	1.00	12.00	1454	1382
20X18X18	30.00	3.50	16.50	1820	1810
20X20X20	34.00	6.25	18.00	2310	2296
24X18X18	30.00	1.00	9.00	1872	1790
24X20X20	34.00	2.00	12.00	2420	2393
24X24X24	38.00	6.50	18.00	3182	2957

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## REDUCERS

MADE IN TWO PATTERNS UP TO 8x6

## ABBREVIATIONS:

A/B—ALL BELL

SEB—SMALL END BELL

LEB—LARGE END BELL

S/S—SPIGOT x SPIGOT

F/F—FLANGED

## REDUCERS—LOS ANGELES STANDARD (SHORT)

SIZE	LAYING LENGTH (L) INCHES					WEIGHT IN POUNDS					PRICE				
	A/B	SEB	LEB	S/S	F/F	A/B	SEB	LEB	S/S	F/F	A/B	SEB	LEB	S/S	F/F
4x3	7	15	15	23		55	50	50	45		11.00	10.00	10.00	9.00	
6x3	9	17	17	25		75	65	65	50		15.00	13.00	13.00	10.00	
6x4	9	17	17	25		80	70	70	55		16.00	14.00	14.00	11.00	
8x3	11	19	19	27		100	85	90	70		20.00	17.00	18.00	14.00	
8x4	11	19	19	27		110	95	100	80		22.00	19.00	20.00	16.00	
8x6	11	19	19	27		125	110	110	95		25.00	22.00	22.00	19.00	

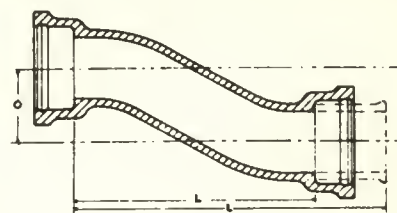
## REDUCERS—A. W. W. A. (LONG)

4x3	22.	20.5	20.	24.	26.	55	45	50	40	32	11.55	9.45	10.50	8.40	
6x3	22.	30.5	30.	34.	26.	115	93	100	74	85	23.00	18.60	20.00	14.80	
6x4	26.	30.	30.	34.	26.	119	97	104	82	89	23.80	19.40	20.80	16.40	
8x3	26.	30.5	30.	34.	26.	143	115	128	96	104	28.60	23.00	25.60	19.20	
8x4	26.	30.	30.	34.	26.	147	119	132	104	113	29.40	23.80	26.40	20.80	
8x6	26.	30.	30.	34.	26.	172	143	150	121	127	34.40	28.60	30.00	24.20	
10x4	26.	30.	30.	34.	26.	177	146	162	131	143	35.40	29.20	32.40	26.20	
10x6	26.	30.	30.	34.	26.	199	169	180	150	162	39.80	33.80	36.00	30.00	
10x8	26.	30.	30.	34.	26.	229	198	201	170	186	45.80	39.60	40.20	34.00	
12x4	26.	30.	30.	34.	26.	217	179	201	163	183	43.40	35.80	40.20	32.60	
12x6	26.	30.	30.	34.	26.	239	202	218	181	201	47.80	40.40	43.60	36.20	
12x8	26.	30.	30.	34.	26.	269	231	240	202	225	53.80	46.20	48.00	40.40	
12x10	26.	30.	30.	34.	26.	299	261	267	229	257	59.80	52.20	53.40	45.80	
14x4	28.	32.	32.	36.	34.	287	233	271	216	225	57.40	46.60	54.20	43.20	
14x6	28.	32.	32.	36.	34.	310	256	288	234	289	62.00	51.20	57.60	46.80	
14x8	28.	32.	32.	36.	34.	342	288	314	260	319	68.40	57.60	62.80	52.00	
14x10	28.	32.	32.	36.	34.	374	320	344	290	360	74.80	64.00	68.80	58.00	
14x12	28.	32.	32.	36.	34.	414	360	378	324	408	82.80	72.00	75.60	64.80	
16x4	28.	32.	32.	36.	34.	349	272	338	260	294	69.80	54.40	67.60	52.00	
16x6	28.	32.	32.	36.	34.	377	300	355	278	320	75.40	60.00	71.00	55.60	
16x8	28.	32.	32.	36.	34.	409	332	381	304	376	81.80	66.40	76.20	60.80	
16x10	28.	32.	32.	36.	34.	440	364	410	334	415	88.00	72.80	82.00	66.80	
16x12	28.	32.	32.	36.	34.	482	405	445	368	464	96.40	81.00	89.00	73.60	
16x14	28.	32.	32.	36.	34.	538	461	484	407	505	107.60	92.20	96.80	81.40	
18x4	28.	32.	32.	36.	34.	406	313	395	301	325	81.20	62.60	79.00	60.20	
18x6	28.	32.	32.	36.	34.	434	341	412	319	346	86.80	68.20	82.40	63.80	
18x8	28.	32.	32.	36.	34.	466	373	438	345	417	93.20	74.60	87.60	69.00	
18x10	28.	32.	32.	36.	34.	498	405	468	375	457	99.60	81.00	93.60	75.00	
18x12	28.	32.	32.	36.	34.	538	446	502	410	505	107.60	89.20	100.40	82.00	
18x14	28.	32.	32.	36.	34.	605	502	541	448	548	121.00	100.40	108.20	89.60	
18x16	28.	32.	32.	36.	34.	662	569	585	492	603	132.40	113.80	117.00	98.40	
20x4	34.	38.	38.	42.	40.	553	437	542	425	455	110.60	87.40	108.40	85.00	
20x6	34.	38.	38.	42.	40.	581	465	557	443	476	116.20	93.00	111.40	88.60	
20x8	34.	38.	38.	42.	40.	613	497	585	469	499	122.60	99.40	117.00	93.80	
20x10	34.	38.	38.	42.	40.	645	529	615	499	599	129.00	105.80	123.00	99.80	
20x12	34.	38.	38.	42.	40.	693	576	656	539	652	138.60	115.20	131.20	107.80	
20x14	34.	38.	38.	42.	40.	755	638	700	583	700	151.00	127.60	140.00	116.60	
20x16	34.	38.	38.	42.	40.	827	711	751	635	764	165.40	142.20	150.20	127.00	
20x18	34.	38.	38.	42.	40.	893	776	800	683	812	178.60	155.20	160.00	136.60	
24x4	34.	38.	38.	42.	40.	719	563	708	552	618	143.80	112.60	141.60	110.40	
24x6	34.	38.	38.	42.	40.	747	591	725	570	639	149.40	118.20	145.00	114.00	
24x8	34.	38.	38.	42.	40.	779	623	751	596	662	155.80	124.60	150.20	119.20	
24x10	34.	38.	38.	42.	40.	811	655	781	626	698	162.20	131.00	156.20	125.20	
24x12	34.	38.	38.	42.	40.	858	702	822	666	751	171.60	140.40	164.40	133.20	
24x14	34.	38.	38.	42.	40.	920	764	866	710	842	184.00	152.80	173.20	142.00	
24x16	34.	38.	38.	42.	40.	993	838	917	762	909	198.60	167.60	183.40	152.40	
24x18	34.	38.	38.	42.	40.	1056	901	965	810	968	211.20	180.20	193.00	162.00	
24x20	34.	38.	38.	42.	40.	1143	987	1027	871	1049	228.60	197.40	205.40	174.20	

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## OFFSETS



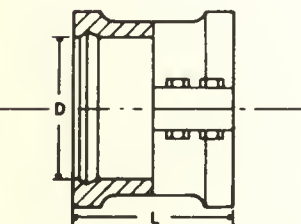
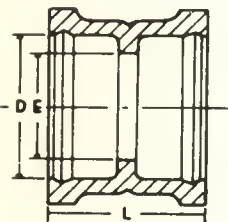
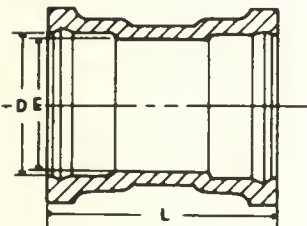
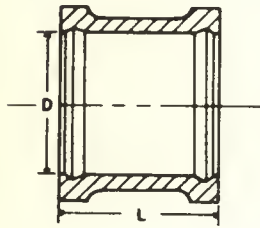
SIZE	ALL BELL				BELL AND SPIGOT			
	L	O	WEIGHT	PRICE	L	O	WEIGHT	PRICE
3	22	6	75	18.75	25-1/2	6	66	16.50
3	22-1/2	8	82	20.50	26	8	70	17.50
3	25-3/4	12	82	20.50	29-1/4	12	70	17.50
3	29	18	86	21.50	32-1/2	18	74	18.50
4	21-1/4	6	89	22.25	25-1/4	6	75	18.75
4	29-3/4	9	114	28.50	33-3/4	9	100	25.00
4	26-1/8	12	109	27.25	30-1/8	12	95	23.75
4	33-3/4	18	140	41.15	37-3/4	18	126	37.65
6	29	6	91	22.75	33	6	73	18.25
6	37-1/2	11-1/4	188	47.00	41-1/2	11-1/4	170	42.50
6	37-1/2	12	202	50.50	41-1/2	12	184	46.00
6	40-1/4	14	213	53.25	44-1/4	14	195	48.75
6	37	18	218	54.50	41	18	200	50.00
6	45	24	254	63.50	49	24	236	59.00
8	23-1/2	6	230	57.50	27-1/2	6	200	50.00
8	32	12	250	62.50	36	12	220	55.00
8	50	12	350	87.50	54	12	320	80.00
8	42-1/4	15	313	78.25	46-1/4	15	280	70.00
8	42-1/2	18	340	85.00	46-1/2	18	310	77.50
8	35	24	410	102.50	39	24	380	95.00
10	20	6	310	77.50	24	6	275	68.75
10	50	12	456	114.00	54	12	420	105.00
10	39-1/8	18	436	109.00	43-1/8	18	400	100.00
12	28	6	420	105.00	34	6	370	92.50
12	50	12	590	147.50	54	12	545	136.25
12	50	18	625	156.25	54	18	580	145.00
14	42	12	675	168.75	46	12	620	155.00
14	51-1/2	18	770	192.50	57-1/2	18	725	181.25
16	50	12	977	244.25	54	12	910	227.50
16	50	18	932	233.00	54	18	865	216.25
18	50	12	1184	296.00	54	12	1105	276.25
18	50	18	1466	366.50	54	18	1387	346.75
20	50	12	1425	356.25	54	12	1323	330.75
20	50	18	1778	444.50	54	18	1676	419.00

## A. W. W. A. STANDARD

3	37-3/4	8.	78	19.50	35-3/4	8.	66	16.50
4	37-3/4	8.	105	26.25	35-3/4	8.	91	22.75
6	48-1/4	14.	202	50.50	46-1/4	14.	183	45.75
8	50.	15.	313	78.25	48.	15.	280	70.00
10	51-3/4	16.	436	109.00	49-3/4	16.	390	97.50
12	53-1/2	17.	590	147.50	51-1/2	17.	530	132.50
14	56-1/4	18.	710	177.50	53-3/4	18.	695	173.75
16	58.	19.	920	230.00	55-1/2	19.	900	225.00



## SLEEVES



## SLEEVES—A. W. W. A. STANDARD

SIZE	D	LENGTH		WEIGHT		PRICE	
		SHORT	LONG	SHORT	LONG	SHORT	LONG
3	4.66	10.00	15.00	36	50	7.20	10.00
4	5.70	10.00	15.00	47	61	9.40	12.20
6	7.80	10.00	15.00	68	87	13.60	17.40
8	10.00	12.00	15.00	104	119	20.80	23.80
10	12.10	12.00	18.00	123	176	24.60	35.20
12	14.20	14.00	18.00	174	223	34.80	44.60
14	16.45	15.00	18.00	240	280	48.00	56.00
16	18.80	15.00	24.00	305	443	61.00	88.60
18	20.92	15.00	24.00	360	518	72.00	103.60
20	23.06	15.00	24.00	440	625	88.00	125.00
24	27.32	15.00	24.00	583	821	116.60	164.20

## SLEEVES—LOS ANGELES—NEW STYLE

SIZE	D	E	L	WEIGHT	PRICE
3	4.76	4.12	14.00	55	11.00
4	5.80	5.16	14.00	69	13.80
6	7.90	7.26	14.00	96	19.20
8	10.10	9.46	14.00	130	26.00
10	12.12	11.60	14.00	168	33.60
12	14.30	13.70	14.00	222	44.40
14	16.45	15.85	15.00	270	54.00
16	18.80	18.00	15.00	345	69.00
18	20.92	20.14	15.00	410	82.00
20	23.06	22.28	15.00	505	101.00
24	27.32	26.57	16.00	698	139.60

## DOUBLE BELL SLEEVES—LOS ANGELES STANDARD

SIZE	D	E	L	WEIGHT	PRICE
3	4.76	3.00	9.00	32	6.40
4	5.80	4.00	9.00	44	8.80
6	7.90	6.00	9.00	63	12.60
8	10.10	8.00	9.00	86	17.20
10	12.20	10.00	9.00	112	22.40
12	14.30	12.00	9.00	136	27.20
14	16.45	14.00	9.00	190	38.00
16	18.80	16.00	9.00	250	50.00
18	20.92	18.00	9.00	300	60.00
20	23.06	20.00	9.00	375	75.00
24	27.32	24.00	9.00	500	100.00

## SPLIT SLEEVES—A. W. W. A. STANDARD

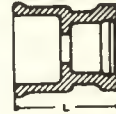
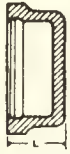
SIZE	D	LENGTH		WEIGHT		PRICE	
		SHORT	LONG	SHORT	LONG	SHORT	LONG
3	4.66	10.00	15.00	61	88	20.32	28.80
4	5.70	10.00	15.00	72	100	22.40	30.08
6	7.80	10.00	15.00	86	114	24.80	33.60
8	10.00	12.00	15.00	133	156	35.68	43.04
10	12.10	12.00	18.00	158	230	41.44	60.80
12	14.20	14.00	18.00	222	285	63.58	82.45
14	16.45	15.00	18.00	286	336	79.05	95.20
16	18.80	15.00	24.00	359	515	95.88	141.44
18	20.92	15.00	24.00	469	694	125.46	190.40
20	23.06	15.00	24.00	502	724	133.62	197.20
24	27.32	15.00	24.00	652	932	174.59	246.50

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## PLUGS — CAPS



CAPS			
SIZE	L	Wt.	PRICE
3	4.60	20	4.40
4	4.60	27	5.94
6	4.65	40	8.00
8	4.75	59	11.80
10	4.75	84	16.80
12	4.75	108	21.60
14	4.90	149	29.80
16	5.00	201	40.20
18	5.00	248	49.60
20	5.00	310	62.00
24	5.25	438	87.60



PLUGS L. A. STD.			
SIZE	L	Wt.	PRICE
3	5	8	1.76
4	6	12	2.64
6	6	22	4.40
8	6	33	6.60
10	6	50	10.00
12	6	78	17.16
14	6	89	19.58
16	7	125	27.50
18	7	160	35.20
20	7	224	49.28
24	8	315	69.30



PLUGS A. W. W. A. STD.			
SIZE	L	Wt.	PRICE
3	5.5	7	1.54
4	5.5	8	1.76
6	5.5	14	2.80
8	5.5	24	4.80
10	6.0	38	7.60
12	6.0	50	10.00
14	6.0	65	13.00
16	6.5	96	19.20
18	6.5	121	24.20
20	6.5	156	31.20
24	8.0	472	94.40

TAPPED CAPS				
SIZE	TAP	L	Wt.	PRICE
3	$\frac{1}{8}$	5.0	20	6.00
3	$\frac{3}{8}$	5.0	20	6.00
3	1	5.0	20	6.00
3	$1\frac{1}{2}$	5.0	20	6.00
3	2	5.0	20	6.25
3	$2\frac{1}{2}$	5.0	19	6.45
3	3	5.0	19	6.70
4	$\frac{1}{8}$	5.0	27	7.70
4	$\frac{3}{8}$	5.0	27	7.70
4	1	5.0	27	7.70
4	$1\frac{1}{2}$	5.0	27	7.70
4	2	5.0	27	8.00
4	$2\frac{1}{2}$	5.0	26	8.20
4	3	5.0	26	8.45
4	4	5.0	25	8.70
6	$\frac{1}{8}$	5.0	40	9.50
6	$\frac{3}{8}$	5.0	40	9.50
6	1	5.0	40	9.50
6	$1\frac{1}{2}$	5.0	40	9.50
6	2	5.0	40	9.80
6	$2\frac{1}{2}$	5.0	39	10.00
6	3	5.0	39	10.25
6	4	5.0	38	10.50
8	$\frac{1}{8}$	5.0	59	13.50
8	$\frac{3}{8}$	5.0	59	13.50
8	1	5.0	59	13.50
8	$1\frac{1}{2}$	5.0	59	13.50
8	2	5.0	59	14.00
8	$2\frac{1}{2}$	5.0	58	14.25
8	3	5.0	58	14.50
8	4	5.0	57	14.50
10	$\frac{1}{8}$	5.0	84	20.50
10	$\frac{3}{8}$	5.0	84	20.50
10	1	5.0	84	20.50
10	$1\frac{1}{2}$	5.0	84	20.50
10	2	5.0	84	21.00
10	$2\frac{1}{2}$	5.0	83	21.50
10	3	5.0	83	22.00
10	4	5.0	82	22.00
12	$\frac{1}{8}$	5.0	108	24.50
12	$\frac{3}{8}$	5.0	108	24.50
12	1	5.0	108	24.50
12	$1\frac{1}{2}$	5.0	108	24.50
12	2	5.0	108	25.00
12	$2\frac{1}{2}$	5.0	107	25.50
12	3	5.0	107	26.00
12	4	5.0	106	26.00

TAPPED PLUGS				
SIZE	TAP	L	Wt.	PRICE
3	$\frac{1}{8}$	6.0	12	3.25
3	$\frac{3}{8}$	6.0	12	3.25
3	1	6.0	12	3.25
3	$1\frac{1}{2}$	6.0	12	3.25
3	2	6.0	12	3.50
3	$2\frac{1}{2}$	6.0	11	3.75
3	3	6.0	$14\frac{1}{2}$	5.20
4	$\frac{1}{8}$	6.0	16	4.00
4	$\frac{3}{8}$	6.0	16	4.00
4	1	6.0	16	4.00
4	$1\frac{1}{2}$	6.0	16	4.00
4	2	6.0	16	4.25
4	$2\frac{1}{2}$	6.0	15	4.50
4	3	6.0	15	4.75
4	4	6.0	20	6.40
6	$\frac{1}{8}$	6.0	27	5.65
6	$\frac{3}{8}$	6.0	27	5.65
6	1	6.0	27	5.65
6	$1\frac{1}{2}$	6.0	27	5.65
6	2	6.0	27	5.90
6	$2\frac{1}{2}$	6.0	26	6.15
6	3	6.0	26	6.40
6	4	6.0	25	7.00
8	$\frac{1}{8}$	6.0	35	8.25
8	$\frac{3}{8}$	6.0	35	8.25
8	1	6.0	35	8.25
8	$1\frac{1}{2}$	6.0	35	8.25
8	2	6.0	35	8.50
8	$2\frac{1}{2}$	6.0	34	8.75
8	3	6.0	33	9.00
8	4	6.0	33	9.60
10	$\frac{1}{8}$	6.0	50	11.50
10	$\frac{3}{8}$	6.0	50	11.50
10	1	6.0	50	11.50
10	$1\frac{1}{2}$	6.0	50	11.50
10	2	6.0	50	11.50
10	$2\frac{1}{2}$	6.0	50	11.75
10	3	6.0	50	12.00
10	4	6.0	50	12.60
12	$\frac{1}{8}$	6.0	78	16.95
12	$\frac{3}{8}$	6.0	78	16.95
12	1	6.0	78	16.95
12	$1\frac{1}{2}$	6.0	78	16.95
12	2	6.0	78	17.10
12	$2\frac{1}{2}$	6.0	78	17.35
12	3	6.0	78	17.60
12	4	6.0	78	18.20

PLUG REDUCERS			
SIZE	L	Wt.	PRICE
3x2	8.0	21	5.25
4x2	8.0	22	5.50
4x3	8.0	32	8.00
6x2	9.6	30	6.00
6x3	10.5	41	8.20
6x4	10.5	45	9.00
8x2	9.5	40	8.00
8x3	10.5	51	10.20
8x4	10.5	55	11.00
8x6	10.7	65	13.00
10x2	9.5	60	12.00
10x3	10.5	71	14.20
10x4	10.5	75	15.00
10x6	10.5	85	17.00
10x8	10.5	110	22.00
12x2	10.5	80	16.00
12x3	10.5	91	18.20
12x4	10.5	95	19.00
12x6	10.5	105	21.00
12x8	10.5	115	23.00
12x10	10.8	130	26.00
14x3	10.5	106	26.50
14x4	10.5	110	27.50
14x6	10.5	120	30.00
14x8	10.5	140	35.00
14x10	10.5	155	38.75
14x12	10.8	185	46.25
16x3	11.0	131	32.75
16x4	11.0	135	33.75
16x6	11.0	145	36.25
16x8	11.0	160	40.00
16x10	11.0	175	43.75
16x12	11.0	190	47.50
16x14	11.4	210	52.50
18x4	11.0	160	40.00
18x6	11.0	170	42.50
18x8	11.0	185	46.25
18x10	11.0	205	51.25
18x12	11.0	235	58.75
18x14	11.0	240	60.00
18x16	11.5	260	65.00
20x4	11.0	190	47.50
20x6	11.0	200	50.00
20x8	11.0	220	55.00
20x10	11.0	230	57.50
20x12	11.0	245	61.25
20x14	11.0	260	65.00
20x16	11.0	295	73.75
20x18	11.5	320	80.00
24x4	12.5	320	80.00
24x6	12.5	330	82.50
24x8	12.5	340	85.00
24x10	12.5	350	87.50
24x12	12.5	360	90.00
24x14	12.5	370	92.50
24x16	12.5	390	97.50
24x18	12.5	400	100.00
24x20	12.5	420	105.00



## TWO-INCH FITTINGS

TWO-INCH SERVICE FITTINGS ARE NOT LISTED BY EITHER A. W. W. A.  
OR LOS ANGELES SPECIFICATIONS BUT ARE EQUAL TO CLASS D

## DIMENSIONS:

A—CENTER TO SEAT OF BELL

S—CENTER TO END OF SPIGOT

TEES					
TYPE	A	B	S	WEIGHT	PRICE
A/B	3½	3½		16	8.00
BSB	3½	3½	9	15½	7.75
BBS	3½	3½	9	15½	7.75

CROSSES					
A/B	3½	3½		20½	10.25
BSBB	3½	3½	9	19½	9.75

WYES					
A/B	5	5		17	8.50
BSB	5	5	7	16	8.00

90° (¼) BENDS				
TYPE	A	S	WEIGHT	PRICE
A/B	6		17½	8.75
B/S	6	9	16½	8.25

45° (⅛) BENDS				
A/B	2¾		13½	6.75
B/S	2¾	5¾	12½	6.25

22½° (1/16) BENDS				
A/B	3½		11	5.50
B/S	3½	5½	10	5.00

11½ (1/32) BENDS				
A/B	3¼		11	5.50
B/S	3¼	5¼	10	5.00

SLEEVES			
TYPE	L	WEIGHT	PRICE
SOLID	9	12	6.48
SPLIT	9	25	22.50

PLUGS				
PLAIN		3	5	1.75
TAPPED	1/2	3	5	3.60
"	1	3	5	3.60
"	2	3	5	3.60

CAPS				
PLAIN		3	3½	2.50
TAPPED	½	3	3½	4.50
"	1	3	3½	4.50
"	2	3	3½	4.50

TEES (A/B)				
SIZE	A	B	WEIGHT	PRICE
3x3x2	4	4½	60	19.80
4x4x2	5	5	80	26.40
6x6x2	5	6	112	28.00
8x8x2	5	7½	161	40.25
10x10x2	5	9	220	55.00
12x12x2	5	10	280	70.00

CROSSES (A/B)				
3x2	4	4½	70	23.10
4x2	5	5	90	29.70
6x2	5	6	138	34.50
8x2	5	7½	171	42.75
10x2	5	9	230	57.50
12x2	5	10	290	72.50

WYES (BSB)				
3x3x2	9½	10½	64	21.12
4x4x2	10½	11½	88	26.40
6x6x2	13	8	123	36.90
8x8x2	16	7	177	53.10

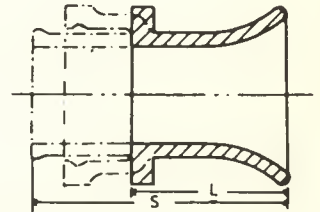
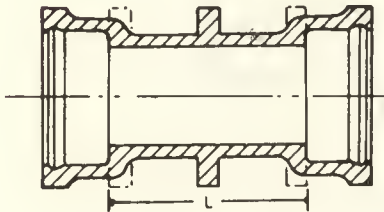
REDUCERS				
SIZE	TYPE	L	WEIGHT	PRICE
2x1½	LEB	5	6	3.00
3x2	SEB	10½	15	6.00
3x2	LEB	9	20	8.00
3x2	B/B	7	23	9.20
3x2	S/S	12½	13	5.20
4x2	SEB	11	20	8.00
4x2	LEB	9	30	12.00
4x2	B/B	7	34	13.60
4x2	S/S	13	17	6.80
6x2	SEB	14	26	9.10
6x2	LEB	13	38	13.30
6x2	B/B	10	42	14.70
6x2	S/S	17	23	8.05
8x2	SEB	14	34	11.90
8x2	LEB	13	48	16.80
8x2	B/B	10	55	19.25
8x2	S/S	17	30	10.50

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## WALL FITTINGS—FLARE FITTINGS

WALL FITTINGS AND FLARE PIECES AVAILABLE IN ANY LENGTH OR TYPE

ONLY THREE TYPES AND LENGTHS LISTED BELOW



## WALL FITTINGS

SIZE	L	B/B		F/B		F/F	
		WEIGHT	PRICE	WEIGHT	PRICE	WEIGHT	PRICE
3	18	69	15.18	56	29.43	43	29.61
4	18	91	20.02	79	33.53	67	34.61
6	18	133	29.26	114	42.84	96	43.20
8	18	202	44.44	172	61.16	144	60.17
10	18	268	58.96	234	78.21	199	77.22
12	18	357	78.54	317	101.79	278	101.39
14	18	425	93.50	385	124.52	344	126.36
16	18	547	120.34	488	153.54	429	152.15
18	18	645	141.90	566	179.69	486	174.69
20	18	790	173.80	693	222.62	597	215.87
24	18	1062	233.64	936	294.03	810	287.01

## FLARE FITTINGS

SIZE	L	S	FLANGE		BELL		SPIGOT	
			WEIGHT	PRICE	WEIGHT	PRICE	WEIGHT	PRICE
3	8	14	25	16.43	36	9.00	25	6.25
4	8	14	42	20.84	54	12.96	39	9.36
6	8	14	57	26.19	76	17.48	57	13.11
8	10	16	94	38.21	122	28.06	92	21.16
10	10	16	126	49.32	150	34.50	123	28.29
12	12	18	196	70.92	214	49.22	186	42.78
14	12	18	204	77.36	254	58.42	195	44.85
16	16	18	280	100.35	323	74.29		
18	16	18	345	121.28	414	95.22		
20	18	18	440	155.93	526	120.98		
24	18	18	600	208.80	689	158.47		

3	24	77	16.94	64	31.95	51	32.13
4	24	102	22.44	90	36.77	78	37.80
6	24	150	33.00	131	47.70	113	48.06
8	24	227	49.94	197	68.18	169	67.19
10	24	304	66.88	270	87.66	235	86.67
12	24	404	88.88	364	116.73	325	116.33
14	24	485	106.70	445	142.97	404	142.56
16	24	621	136.62	562	171.00	503	174.11
18	24	735	161.70	656	205.97	576	200.97
20	24	896	197.12	799	253.49	703	248.99
24	24	1205	265.10	1079	337.14	953	330.12

3	24	24	43	22.10	54	13.50	35	8.75
4	24	24	74	30.20	86	20.64	60	14.40
6	24	24	105	39.15	124	28.52	88	20.24
8	24	24	150	53.33	178	40.94	122	28.06
10	24	24	210	72.00	234	53.82	177	40.71
12	24	24	292	96.84	310	71.30	243	55.89
14	24	24	324	109.76	374	86.02	265	60.95
16	24	24	376	126.27	419	96.37	301	69.23
18	24	24	465	153.68	534	122.82	390	89.70
20	24	24	548	185.09	634	145.82	450	103.50
24	24	24	744	247.68	833	191.59	611	140.53

3	30	85	18.70	72	34.47	59	34.65
4	30	113	24.86	101	39.96	89	41.04
6	30	168	36.96	149	52.56	131	52.92
8	30	253	55.66	223	74.93	195	73.94
10	30	339	74.58	305	99.63	270	98.64
12	30	450	99.00	410	129.42	371	129.02
14	30	544	119.68	504	158.90	463	160.74
16	30	694	152.68	635	197.73	576	194.09
18	30	823	181.06	744	232.25	664	227.25
20	30	1002	220.44	905	284.36	809	279.86
24	30	1348	296.56	1222	380.25	1096	373.23

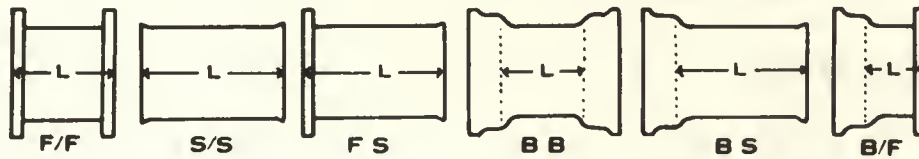
3	30	30	51	24.62	62	15.50	43	10.75
4	30	30	85	33.39	97	23.28	71	17.04
6	30	30	122	43.74	141	32.43	105	24.15
8	30	30	176	60.35	204	46.92	148	34.04
10	30	30	246	81.72	270	62.10	207	47.61
12	30	30	339	109.53	357	82.11	282	64.86
14	30	30	434	139.46	484	111.32	375	86.25
16	30	30	500	159.75	543	124.89	426	97.98
18	30	30	555	177.98	624	143.52	480	110.40
20	30	30	654	213.71	740	170.20	556	127.88
24	30	30	887	286.29	976	224.48	754	173.42

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## SPOOLS, NIPPLES, ADAPTERS AND MISCELLANEOUS PIPE



## 2 INCH

L	WEIGHT						PRICE					
	F/S	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	11			11		11	11.20			7.50		9.50
1'0"	14		10	14	10	14	12.40	2.70	7.40	8.90	5.70	10.40
1'6"	17	9	13	17	13	17	13.90	4.20	8.90	10.20	7.20	11.90
2'0"	20	12	16	20	16	20	15.10	5.40	10.10	11.40	8.40	13.10
2'6"	23	15	19	23	19	23	19.80	9.20	14.30	17.20	13.20	18.30
3'0"	26	18	22	26	22	26	21.40	10.80	15.90	22.40	14.80	19.90
3'6"	29	21	25	29	25	29	23.40	12.80	17.90	24.40	16.80	21.90
4'0"	32	24	28	32	28	32	25.00	14.40	19.50	26.00	18.40	23.50
4'6"	35	27	31	35	31	35						
5'0"	38	30	34	38	34	38						
5'6"	41	33	37	41	37	41						
6'0"	48	36	40	48	40	48						

## 3 INCH

L	WEIGHT						PRICE					
	F/S	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	22			46		36	13.82			12.00		14.30
1'0"	31		24	54	35	44	16.61		10.70	16.20	10.50	16.70
1'6"	39	25	32	63	44	52	18.70	7.50	13.10	18.90	13.20	19.10
2'0"	47	33	40	71	52	60	21.10	9.90	15.50	21.30	15.60	21.50
2'6"	55	41	48	79	60	68	23.50	12.30	17.90	23.70	18.00	23.90
3'0"	64	50	56	88	69	77	26.20	15.00	20.30	26.40	20.70	26.60
3'6"	72	58	65	96	77	85	28.60	17.40	23.00	28.80	23.10	29.00
4'0"	80	66	73	105	86	93	31.00	19.80	25.40	31.50	25.80	31.40
4'6"	88	74	81	112	93	101	36.92	25.90	31.85	39.20	32.55	38.85
5'0"	96	82	89	120	101	109	40.60	28.70	34.65	42.00	35.35	41.65
5'6"	105	91	98	129	110	118	43.75	31.85	37.80	45.15	38.50	44.80
6'0"	113	99	106	137	118	126	46.55	34.65	40.60	47.95	41.30	47.60

## 4 INCH

L	WEIGHT						PRICE					
	F/S	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	36			63		47	20.80			18.90		19.10
1'0"	47		35	74	48	58	24.10		15.50	22.20	14.40	22.40
1'6"	59	35	47	87	61	70	27.70	10.50	19.10	26.10	18.30	26.00
2'0"	70	46	58	98	72	81	31.00	13.80	22.40	29.40	21.60	29.30
2'6"	81	57	69	109	83	92	34.30	17.10	25.70	32.70	24.90	28.10
3'0"	93	69	81	121	95	104	37.90	20.70	29.30	36.30	28.50	36.20
3'6"	104	80	92	132	106	115	41.20	24.00	32.60	39.60	31.80	39.50
4'0"	116	92	104	144	118	127	44.80	27.60	36.20	43.20	35.40	43.10
4'6"	127	103	115	155	129	138	54.45	36.05	45.25	55.30	45.15	53.30
5'0"	138	114	126	166	140	148	58.30	39.90	49.10	58.10	49.00	57.15
5'6"	150	126	138	178	152	161	62.50	42.00	53.30	62.30	53.20	61.35
6'0"	161	137	149	189	163	172	66.35	47.95	57.15	66.15	57.05	65.20

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED



## SPOOLS, NIPPLES, ADAPTERS AND MISCELLANEOUS PIPE

### 6 INCH

WEIGHT							PRICE					
L	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	50			90		67	21.00			19.80		19.74
1'0"	68		51	107	71	85	24.96		16.22	23.54	15.62	23.70
1'6"	85	53	69	125	89	102	28.70	11.66	20.13	27.50	19.58	27.44
2'0"	103	71	87	143	107	120	32.44	15.62	24.19	31.46	23.54	31.70
2'6"	121	89	105	161	125	138	36.62	19.58	28.10	35.42	27.50	35.36
3'0"	138	106	122	178	144	155	40.36	23.32	31.84	39.16	31.68	39.10
3'6"	156	124	140	192	160	173	44.32	27.28	35.80	42.24	35.20	43.06
4'0"	174	142	158	214	178	191	48.28	31.24	36.24	47.08	39.16	47.02
4'6"	191	159	175	231	195	208	52.02	34.98	43.50	50.82	42.90	50.76
5'0"	209	177	193	249	213	226	55.98	38.94	47.46	54.78	46.86	54.72
5'6"	227	195	211	267	231	244	59.94	42.90	51.42	58.74	50.82	58.64
6'0"	244	212	228	284	248	261	63.68	46.64	55.16	62.48	54.56	62.42
6'6"	262	230	246	302	266	279	75.50	57.50	66.50	75.50	66.50	74.75
7'0"	280	248	264	320	284	297	80.00	62.00	71.00	80.00	71.00	79.25
7'6"	297	265	281	337	301	314	84.25	66.25	75.25	84.25	75.25	83.50
8'0"	315	283	299	355	319	332	88.75	70.75	79.75	88.75	79.75	88.00
9'0"	350	318	334	390	354	367	115.00	95.40	105.20	117.00	107.00	115.10
10'0"	385	353	369	425	389	402	125.50	105.90	115.70	127.50	116.70	125.60
11'0"	420	389	405	461	425	438	136.00	116.70	126.50	138.30	127.50	136.40
12'0"	456	424	440	496	460	473	146.80	127.20	137.00	148.80	138.00	146.90

### 8 INCH

L	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	76			137		103	28.72			30.14		28.66
1'0"	102		78	163	107	129	34.44		23.16	35.86	23.54	34.38
1'6"	127	77	102	189	133	154	39.94	16.94	28.44	41.58	29.26	39.88
2'0"	153	103	128	215	159	180	45.66	22.66	34.16	47.30	34.98	45.60
2'6"	178	128	153	240	184	205	51.16	28.16	39.66	52.80	40.48	51.10
3'0"	204	154	179	266	210	231	56.88	33.88	45.38	58.52	46.20	56.82
3'6"	230	180	205	292	236	257	62.60	39.60	51.10	64.24	51.92	62.54
4'0"	255	205	230	317	261	282	68.10	45.10	57.60	69.74	57.42	68.04
4'6"	281	231	256	343	287	308	73.82	50.82	62.32	75.46	63.14	73.76
5'0"	306	256	281	368	312	333	79.32	56.32	67.82	80.96	68.86	72.66
5'6"	332	282	307	394	338	359	85.04	62.04	73.54	86.68	74.36	84.98
6'0"	358	308	333	420	364	385	90.76	67.76	79.26	92.40	80.08	90.70
6'6"	383	333	358	445	389	410	107.75	83.25	95.50	111.25	97.25	108.50
7'0"	409	359	384	471	415	436	114.25	89.75	102.00	117.75	103.75	115.00
7'6"	434	384	409	496	440	461	120.50	96.00	108.25	124.00	110.00	121.25
8'0"	460	410	435	522	466	487	127.00	102.50	114.75	130.50	116.50	127.75
9'0"	511	461	486	573	517	538	165.30	138.30	151.80	171.90	155.10	167.40
10'0"	562	512	537	624	568	589	180.60	153.60	167.10	187.20	170.40	182.70
11'0"	614	564	589	679	623	641	196.20	169.20	182.70	203.70	186.90	198.30
12'0"	665	615	640	727	671	692	211.50	184.50	198.00	218.10	201.30	213.60

### 10 INCH

L	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	104			162		136	34.88			35.64		35.92
1'0"	140		106	197	134	172	42.80		29.32	43.34	29.48	43.84
1'6"	176	108	142	234	171	208	50.72	23.76	37.24	51.48	37.62	51.76
2'0"	211	143	177	269	206	243	58.42	31.46	44.94	59.18	45.32	59.48
2'6"	247	179	213	305	242	279	66.34	39.38	52.86	67.10	53.24	67.38
3'0"	283	215	249	341	278	315	74.26	47.30	60.78	75.02	61.16	75.30
3'6"	318	250	284	376	313	350	81.96	55.00	68.48	82.72	68.86	83.00
4'0"	354	286	320	412	349	386	89.88	62.92	76.40	90.64	76.78	90.92
4'6"	390	322	356	448	385	422	97.80	70.84	84.32	98.56	84.70	98.84
5'0"	425	357	391	483	420	457	105.50	78.54	92.02	106.26	92.40	106.54
5'6"	461	393	427	519	456	493	113.42	86.46	99.94	114.18	100.32	114.46
6'0"	497	429	463	555	492	529	121.34	94.38	101.86	122.10	108.24	122.38
6'6"	533	465	499	591	528	565	145.25	116.25	130.75	147.75	132.00	147.25
7'0"	568	500	534	626	563	600	154.00	125.00	139.50	156.50	140.75	156.00
7'6"	604	536	570	662	599	636	163.00	134.00	148.50	165.50	149.75	165.00
8'0"	640	572	606	698	635	672	172.00	143.00	157.50	174.50	158.75	174.00
9'0"	711	643	677	769	706	743	225.30	192.90	209.10	230.70	211.80	228.90
10'0"	782	714	748	840	777	814	246.60	214.20	230.40	252.00	233.10	250.20
11'0"	854	786	820	912	849	886	268.20	235.80	252.00	273.80	254.70	271.80
12'0"	925	857	891	983	920	957	289.50	257.10	273.30	294.90	276.00	293.10

ALL DIMENSIONS IN INCHES. ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## SPOOLS, NIPPLES, ADAPTERS AND MISCELLANEOUS PIPE

## 12 INCH

WEIGHT							PRICE					
L	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	149			197		183	45.78			43.34		46.76
1'0"	196		145	243	168	230	56.12		38.40	53.46	36.96	57.10
1'6"	243	141	192	291	216	277	66.46	31.02	48.74	64.02	47.52	67.44
2'0"	290	188	239	338	263	324	76.80	41.36	59.08	74.36	57.86	77.78
2'6"	337	235	286	385	310	371	87.14	51.70	69.42	84.70	68.20	88.12
3'0"	383	282	333	432	357	418	97.26	62.04	79.76	95.04	78.54	98.46
3'6"	430	328	379	478	403	464	107.60	72.16	89.88	105.16	88.66	108.58
4'0"	477	375	426	525	450	511	117.94	82.50	100.22	115.50	99.00	118.92
4'6"	524	422	473	572	497	558	128.28	92.84	110.56	125.84	109.34	129.26
5'0"	571	469	520	619	544	605	138.62	103.18	120.90	136.18	119.68	139.60
5'6"	618	516	567	666	591	652	148.96	113.52	131.24	146.52	130.02	149.94
6'0"	665	563	614	713	638	699	159.30	123.86	141.58	156.86	140.36	160.28
6'6"	711	610	660	760	685	745	190.75	152.50	171.50	190.00	171.25	192.75
7'0"	758	656	707	806	731	792	202.50	164.00	183.25	201.50	182.75	204.50
7'6"	805	703	753	853	778	839	214.25	175.75	194.75	213.25	194.50	216.25
8'0"	852	750	801	900	825	886	226.00	187.50	206.75	225.00	206.25	228.00
9'0"	946	844	895	994	919	980	296.80	253.20	275.00	298.20	275.70	300.50
10'0"	1039	937	988	1087	1012	1073	324.70	281.10	302.90	326.10	303.60	328.40
11'0"	1133	1031	1082	1181	1106	1167	352.90	309.30	331.10	354.30	331.80	356.60
12'0"	1227	1125	1176	1275	1200	1261	381.10	337.50	359.30	382.50	360.00	384.80

## 14 INCH

L	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	184			303		218	54.48			66.66		54.96
1'0"	244		182	357	238	278	67.68		47.04	78.54	52.36	68.16
1'6"	303	179	241	417	298	337	80.66	39.38	60.08	91.74	65.56	81.14
2'0"	363	239	301	477	358	397	93.86	52.58	73.22	104.94	78.76	94.34
2'6"	422	298	360	536	417	456	106.84	65.56	86.20	117.92	91.74	107.32
3'0"	482	358	420	596	477	516	120.04	78.76	99.40	131.12	104.94	120.52
3'6"	542	418	480	656	537	576	133.24	91.96	112.60	144.32	118.14	133.72
4'0"	601	477	539	715	596	635	146.22	104.94	125.58	157.30	131.12	146.70
4'6"	661	537	599	775	656	695	159.20	118.14	138.78	170.50	144.32	159.90
5'0"	720	596	658	834	715	744	172.40	131.12	151.76	183.48	157.30	170.68
5'6"	780	656	718	894	775	814	185.60	144.32	164.96	196.68	170.50	186.08
6'0"	840	716	778	954	835	874	198.80	157.52	178.16	209.88	183.70	199.28
6'6"	899	775	837	1013	894	933	238.75	193.75	216.25	253.35	223.50	240.25
7'0"	959	835	897	1060	954	993	253.75	208.75	231.25	265.00	238.50	255.25
7'6"	1018	894	956	1132	1013	1052	268.50	223.50	246.00	283.00	253.25	270.00
8'0"	1078	954	1016	1192	1073	1112	283.50	238.50	261.00	298.00	268.25	285.00
9'0"	1197	1073	1135	1311	1192	1231						
10'0"	1316	1192	1254	1430	1311	1350						
11'0"	1436	1312	1374	1550	1431	1470						
12'0"	1555	1431	1493	1669	1550	1589						

## 16 INCH

L	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	228			333		279	66.16			73.26		69.38
1'0"	302		225	407	277	353	82.44		57.50	89.54	60.94	85.66
1'6"	376	222	299	482	352	427	98.72	48.84	73.78	106.04	77.44	101.94
2'0"	429	295	372	555	425	500	110.38	64.90	89.84	122.10	93.50	118.00
2'6"	523	369	446	629	499	574	131.06	81.18	106.12	138.38	109.78	134.28
3'0"	597	443	520	703	573	648	147.04	97.46	122.40	154.56	126.06	150.56
3'6"	671	517	594	777	647	722	163.62	113.74	138.68	170.94	142.34	166.84
4'0"	744	590	667	850	720	795	179.68	129.80	154.74	187.00	158.40	182.90
4'6"	818	664	741	924	794	869	195.96	146.08	171.02	203.28	174.68	199.18
5'0"	892	738	815	998	868	943	212.24	162.36	187.30	219.56	190.96	215.46
5'6"	966	812	889	1072	942	1017	228.52	178.64	203.58	235.84	207.24	231.74
6'0"	1039	885	962	1145	1015	1090	244.58	194.70	219.64	251.90	223.30	247.80
6'6"	1113	959	1036	1219	1089	1164	294.25	239.75	267.00	304.75	272.25	299.00
7'0"	1187	1033	1110	1293	1163	1238	312.75	258.25	285.50	323.25	290.75	317.50
7'6"	1261	1107	1184	1367	1237	1312	331.25	276.75	304.00	341.75	309.25	336.00
8'0"	1334	1180	1257	1440	1310	1385	349.50	295.00	322.25	360.00	327.50	354.25
9'0"	1482	1328	1405	1588	1458	1533						
10'0"	1629	1475	1552	1735	1605	1680						
11'0"	1777	1623	1700	1883	1753	1828						
12'0"	1924	1770	1847	2030	1900	1975						

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED





## SPOOLS, NIPPLES, ADAPTERS AND MISCELLANEOUS PIPE

## 18 INCH

L	WEIGHT						PRICE					
	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	254			407		337	75.88			89.54		84.14
1'0"	360		270	497	339	360	99.20		69.40	109.34	74.58	103.50
1'6"	450	268	360	587	425	450	119.00	58.96	89.20	129.14	93.50	123.30
2'0"	521	357	439	675	516	606	134.62	78.54	106.58	148.50	113.52	143.32
2'6"	610	446	528	764	605	681	154.20	98.12	126.16	168.08	113.10	159.82
3'0"	700	536	618	854	695	771	174.00	117.92	145.96	187.88	152.90	179.62
3'6"	799	625	707	943	784	860	195.78	139.70	165.54	207.46	172.48	199.20
4'0"	878	714	796	1032	873	949	213.16	157.08	185.12	227.04	192.06	218.78
4'6"	967	803	885	1121	962	1038	232.74	176.66	204.70	246.62	211.64	228.36
5'0"	1056	892	974	1210	1051	1127	252.52	196.24	224.28	266.20	231.22	257.94
5'6"	1146	982	1064	1300	1141	1217	272.12	216.04	244.08	286.00	251.02	277.74
6'0"	1235	1071	1153	1389	1230	1306	291.70	235.62	263.66	305.58	270.60	297.32
6'6"	1324	1160	1242	1478	1319	1395	351.00	290.00	320.50	369.50	329.74	358.75
7'0"	1413	1249	1331	1567	1408	1484	373.25	312.25	342.75	391.75	352.00	381.00
7'6"	1502	1338	1420	1656	1497	1573	395.50	334.50	365.00	414.00	374.25	403.25
8'0"	1592	1428	1500	1746	1587	1663	418.00	357.25	385.00	436.50	396.75	425.75
9'0"	1770	1606	1688	1924	1765	1841						
10'0"	1948	1784	1866	2102	1943	2019						
11'0"	2127	1963	2044	2281	2122	2198						
12'0"	2305	2141	2223	2459	2300	2376						

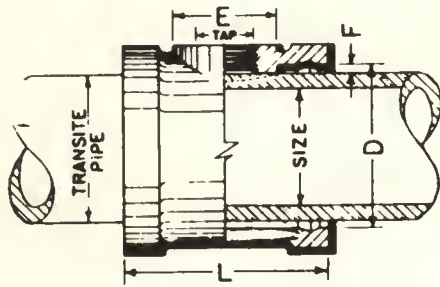
## 20 INCH

L	WEIGHT						PRICE					
	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	315			510		400	93.20			112.20		100.00
1'0"	421		317	616	414	506	116.62		81.74	135.52	91.08	123.32
1'6"	527	319	423	723	521	612	139.94	70.18	105.06	159.06	114.62	146.64
2'0"	633	425	529	829	627	718	163.26	93.50	128.38	182.38	137.94	169.96
2'6"	739	531	635	935	733	824	186.58	116.82	151.70	205.70	161.26	193.28
3'0"	845	637	741	1041	839	930	209.90	140.14	175.02	229.02	184.58	216.60
3'6"	951	743	847	1147	945	1036	233.22	163.46	198.34	252.34	207.90	239.32
4'0"	1058	850	954	1254	1052	1143	256.76	187.00	221.88	275.88	231.44	263.46
4'6"	1164	956	1060	1360	1158	1249	280.08	210.32	245.20	299.20	254.76	286.78
5'0"	1270	1062	1166	1466	1264	1355	303.40	233.64	268.52	322.52	278.08	310.10
5'6"	1376	1168	1272	1572	1370	1461	326.72	256.76	291.84	345.84	301.40	333.42
6'0"	1482	1274	1376	1678	1476	1567	350.04	280.28	314.72	369.16	324.72	356.74
6'6"	1588	1380	1484	1784	1582	1673	421.00	345.00	383.00	446.00	395.50	430.25
7'0"	1695	1487	1591	1891	1689	1780	447.45	371.75	409.75	472.75	422.25	457.00
7'6"	1800	1593	1697	1997	1795	1886	474.00	398.25	436.25	499.25	448.75	483.50
8'0"	1907	1699	1803	2103	1901	1992	500.75	424.75	462.75	525.75	475.25	510.00
9'0"	2119	1911	2015	2315	2113	2203						
10'0"	2331	2123	2227	2527	2325	2416						
11'0"	2544	2336	2440	2740	2538	2629						
12'0"	2756	2548	2652	2952	2750	2841						

## 24 INCH

L	WEIGHT						PRICE					
	F/F	S/S	F/S	B/B	B/S	B/F	F/F	S/S	F/S	B/B	B/S	B/F
0'6"	427			637		538	121.94			140.14		132.36
1'0"	570		428	780	533	681	153.40		108.16	171.60	117.26	163.82
1'6"	713	429	571	923	676	824	184.86	94.38	139.62	203.06	148.72	195.28
2'0"	856	572	714	1066	819	967	216.32	125.84	171.08	234.52	180.18	226.74
2'6"	999	715	857	1209	962	1110	247.78	157.30	202.54	265.98	211.64	258.20
3'0"	1142	858	1000	1352	1105	1253	279.24	188.76	234.00	297.44	243.10	289.66
3'6"	1285	1001	1143	1495	1248	1396	310.70	220.20	265.46	328.90	274.56	321.12
4'0"	1428	1144	1286	1638	1391	1539	342.16	251.68	296.70	360.36	306.02	352.58
4'6"	1571	1287	1429	1781	1534	1682	373.62	283.14	328.38	391.82	337.48	384.08
5'0"	1714	1430	1572	1924	1671	1825	405.08	314.60	359.84	423.28	367.62	415.50
5'6"	1857	1573	1715	2067	1820	1968	436.54	346.06	391.30	454.74	400.40	446.96
6'0"	2000	1716	1858	2210	1963	2114	468.00	377.52	422.76	486.20	431.38	478.42
6'6"	2143	1859	2001	2353	2106	2254	563.75	464.75	514.25	588.25	526.60	577.50
7'0"	2286	2002	2144	2496	2249	2397	599.50	500.50	550.00	624.00	562.25	613.25
7'6"	2429	2145	2287	2639	2392	2540	635.25	536.25	585.75	659.75	598.00	649.00
8'0"	2572	2288	2430	2782	2535	2682	671.00	572.00	621.50	695.50	633.75	684.50
9'0"	2858	2574	2716	3068	2821	2969						
10'0"	3144	2860	3002	3354	3107	3255						

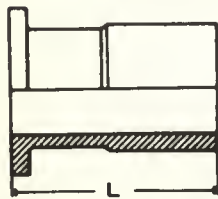
## TAPPED SERVICE SLEEVES



SIZE	DIMENSION				SOLID SLEEVE				SPLIT SLEEVE			
	D	E	F	L	ONE TAP		TWO TAPS		ONE TAP		TWO TAPS	
					WEIGHT	PRICE	WEIGHT	PRICE	WEIGHT	PRICE	WEIGHT	PRICE
2	3.72	3.50	.40	7.00	16	7.12	18	9.76	30	11.60	32	14.24
2½	4.42	3.50	.50	7.00	19	8.08	20	10.40	33	12.56	35	15.20
3	4.98	3.50	.50	7.00	21	8.72	23	11.36	35	13.20	37	15.84
3½	5.48	3.50	.50	7.00	22	9.04	24	11.68	36	13.52	38	16.16
4	6.06	3.50	.50	7.00	25	10.00	27	12.64	39	14.48	41	17.12
4½	6.56	3.50	.50	7.00	26	10.32	28	12.96	40	14.80	42	17.44
5	7.14	3.50	.50	7.00	28	10.96	30	13.60	42	15.44	44	18.08
6	8.24	3.50	.50	7.00	32	12.24	34	14.88	46	16.72	48	19.36
7	9.30	3.50	.50	7.00	36	13.52	38	16.16	50	18.00	52	20.64
8	10.38	3.50	.50	7.00	40	14.80	42	14.44	54	19.28	56	21.92
10	12.70	3.50	.50	7.00	48	17.36	50	20.00	62	21.84	64	24.48

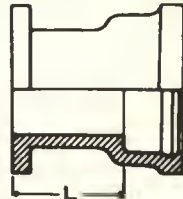
## TRANSITE ADAPTERS

TO ADAPT TRANSITE PIPE TO CAST IRON STEEL WOOD STAVE, ETC.



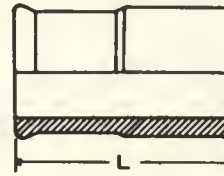
FLANGE X SIMPLEX

SIZE	L	WEIGHT	PRICE
2	22	33	18.55
3	22	56	24.30
4	22	70	28.00
6	22	100	33.00
8	22	146	44.00
10	22	202	57.44
12	22	274	74.28
14	24	420	107.00
16	24	444	125.80
18	24	588	149.36
20	24	724	185.78



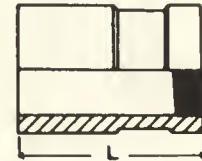
FLANGE X BELL

SIZE	L	WEIGHT	PRICE
2	6	11	9.50
3	6	36	14.30
4	6	47	19.10
6	6	67	19.74
8	6	103	28.66
10	6	136	35.92
12	6	183	46.76
14	6	218	54.96
16	6	279	69.38
18	6	325	84.14
20	6	400	100.00



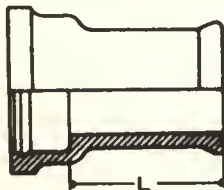
SPIGOT X SIMPLEX

SIZE	L	WEIGHT	PRICE
2	22	15	7.30
3	22	34	11.48
4	22	47	15.34
6	22	76	23.72
8	22	138	34.50
10	22	152	47.26
12	22	201	61.40
14	24	260	86.10
16	24	316	109.22
18	24	391	135.86
20	24	450	165.42



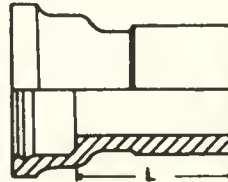
SIMPLEX X THREAD

SIZE	L	WEIGHT	PRICE
2	22	20	12.50
3	22	38	17.40
4	22	55	24.00
6	22	80	28.60
8	22	130	43.10
10	22	190	59.30
12	22	255	73.60



BELL X SPIGOT

SIZE	L	WEIGHT	PRICE
2	11	10	3.00
3	12	36	10.80
4	16	57	14.25
6	16	75	16.50
8	16	123	27.06
10	16	159	34.98
12	16	200	44.00
14	16	279	61.38
16	16	322	70.84
18	16	395	86.90
20	16	483	106.26



BELL X SIMPLEX

SIZE	L	WEIGHT	PRICE
2	22	23	10.60
3	22	57	21.10
4	22	76	23.00
6	22	118	31.96
8	22	177	45.94
10	22	244	60.68
12	22	291	71.52
14	24	456	108.32
16	24	569	135.18
18	24	715	169.30
20	24	857	203.04



DOUBLE BELL

SIZE	L	WEIGHT	PRICE
2	9	12	6.00
3	9	32	6.40
4	9	44	8.80
6	9	63	12.60
8	9	86	17.20
10	9	112	22.40
12	9	136	27.20
14	9	190	38.00
16	9	250	50.00
18	9	300	60.00
20	9	375	75.00



BELL X THREAD

SIZE	L	WEIGHT	PRICE
2	6	5	4.50
3	6	20	6.70
4	6	27	8.70
6	6	40	10.50
8	6	59	18.00
10	6	84	24.17
12	6	108	30.11

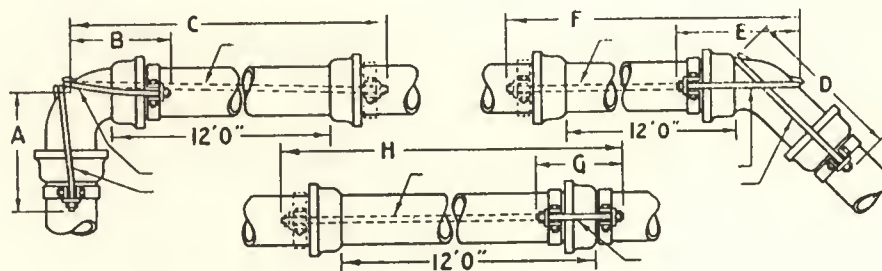
ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED

## PIPE FITTINGS

## Cast Iron Pipe—Bells—Flanges. Weights and Data

NOMINAL SIZE	CLASS C PIPE PLAIN ENDS PER FOOT	CLASS D PIPE PLAIN ENDS PER FOOT	BELLS ONLY CLASSES C OR D	FLANGES ONLY WEIGHT	FACING AND DRILLING (MINIMUM FOR EASILY HANDLER FITTINGS)
3"	15.5 LBS.	16.4 LBS.	12 LBS.	6.2 LBS.	\$ 4.40
4"	21.3 LBS.	22.8 LBS.	17 LBS.	10.7 LBS.	4.40
6"	32.9 LBS.	35.3 LBS.	26 LBS.	14.4 LBS.	5.60
8"	48. LBS.	51.2 LBS.	40 LBS.	22. LBS.	6.66
10"	65.5 LBS.	71.4 LBS.	54 LBS.	30.6 LBS.	8.00
12"	85.4 LBS.	93.7 LBS.	72 LBS.	45.6 LBS.	9.40
14"	108.1 LBS.	119.2 LBS.	96 LBS.	55.1 LBS.	11.50
16"	133.3 LBS.	147.5 LBS.	114 LBS.	69.1 LBS.	12.90
18"	162.4 LBS.	178.4 LBS.	139 LBS.	72.8 LBS.	15.20
20"	190.6 LBS.	212.3 LBS.	163 LBS.	92.9 LBS.	18.40
24"	257.6 LBS.	286. LBS.	247 LBS.	126.8 LBS.	23.10
30"	366.9 LBS.	421.2 LBS.	335 LBS.	186.4 LBS.	30.50
36"	497.7 LBS.	581.9 LBS.	485 LBS.	282.5 LBS.	41.00
42"	657.4 LBS.	764.1 LBS.	732 LBS.	392.1 LBS.	58.00
48"	832.7 LBS.	960.8 LBS.	1050 LBS.	470.8 LBS.	78.50

## A650—STEEL TIE RODS FOR C.I. WATER FITTINGS



A650

PRICES ON APPLICATION

ALL DIMENSIONS IN INCHES, ALL WEIGHTS IN POUNDS, UNLESS OTHERWISE NOTED







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*(NS indicates "Not Shown" but manufactured)*







